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DPEP

जिला प्राथमिक शिक्षा कार्यक्रम
DISTRICT PRIMARY EDUCATION PROGRAMME

District Primary Education Programme (DPEP)

RESEARCH ABSTRACTS IN PRIMARY EDUCATION (1994-2000)

(A Compilation of over 250 Research Abstracts)

November 2000

Research, Evaluation and Studies Unit (RESU),
Technical Support Group (TSG) for DPEP

Ed.CIL

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Foreword

In the District Primary Education Programme, there has been considerable emphasis on research based initiatives and hence encouragement was given to institutions and individuals to undertake studies on a variety of problems in the field of primary education. As a result, during the last six years or so, over 250 studies have been conducted by various national and state level organisations and individuals as well as by District Institutes of Education and Training in some of the states. The need was felt for sharing the information about these studies with others who would be interested in knowing the objectives of these studies and their findings. Keeping this in view, this volume of research abstracts was prepared by Research, Evaluation and Studies Unit of Ed.CIL's Technical Support Group for DPEP. It contains information on the objectives, methodology and findings of various studies on problems of primary education undertaken in the DPEP states. It also contains an analysis of the general trend and a classification of the studies in six broad areas according to the type of problem tackled. The abstracts included in this volume are of the studies that were completed by November 2000. As many more studies would have been completed in the different states after that and in case some studies completed earlier have been inadvertently left out, it is proposed to bring out another volume, containing abstracts of all such studies.

It is hoped that this volume will prove useful to researchers, administrators and others interested in primary education. We shall welcome the comments and suggestions of the users of this volume as these will help us in improving it in the future.

I am grateful to Prof. A.B.L. Srivastava, Chief Consultant, Research, Evaluation & Studies Unit, Technical Support Group for DPEP, who took the initiative of preparing this volume and has produced it in its present form and to Dr. Roopa R. Joshi, former Director and other officials in the DPEP Bureau who provided the needed support for this work.

Sumit Bose

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PREFACE

Over the last 5 years, a number of research and evaluation studies have been undertaken, not only at the national and state level in the different DPEP states, but also at the district and sub-district levels. While the need for wide dissemination of information about these studies was strongly felt, not much sharing of the findings of these studies has taken place so far.

Now an attempt has been made to compile abstracts of all the studies undertaken in the different DPEP states by the national and state level institutions, NGOs and individuals that were directly or indirectly supported by DPEP. Most of these studies were on issues of concern to DPEP and were undertaken because of felt needs.

In this report abstracts of over 250 research studies are presented. The abstracts provide information on the objectives of the studies, the methodology that was used and their main findings. The abstracts were supplied by the State Project Offices, SCERTs, and other national and state level institutions. Although definite guidelines were provided for preparation of abstracts, some of the abstracts that were received were very much detailed, whereas others were quite concise. Also some studies were perhaps left out inadvertently. One cannot claim that all the studies of which the abstracts are reported here were perfect or were free of flaws, but one has to appreciate that so many studies were conducted as a result of the incentives given and capacity building programme undertaken by DPEP. It is worth noting that so much interest in research has been generated at all levels, including not only the district and block levels but also the primary school level. At the school level, over 400 Action Research studies were conducted by school teachers in the DPEP districts of the different states. However, their abstracts have not been included in this volume as most of them were just school-specific studies.

It is hoped that these abstracts will prove useful to all who are interested in primary education, be it planners and administrators, teacher-educators and teachers, or researchers and educationists. We are grateful to DPEP Bureau in MHRD for supporting this project of compiling research abstracts, in particular to Dr. Roopa R. Joshi, former Director in DPEP Bureau for taking keen interest in it; to the State Project Directors and Research & Evaluation Coordinators in the states, and others who supplied abstracts; to Shri Rajesh Mall, who painstakingly edited the abstracts to produce them in the present form, and others in the Research, Evaluation & Studies Unit who provided secretarial support.

(A.B.L. Srivastava)

INTRODUCTION

BACKGROUND

In this report an attempt has been made to present the abstracts of research studies conducted in DPEP states. Researchers have always felt the need for adequate dissemination of the findings of their studies for the benefit of planners, administrators and other researchers.

In 1994, the District Primary Education Programme (DPEP) was launched as a centrally-sponsored scheme in 42 educationally-backward districts spread over seven states to accomplish the target of UEE. The programme adopted a fresh and wholistic approach with focus on a decentralised educational management system enabling community involvement, enhancing access & retention and bettering the quality of education.

To provide a sound scientific base to the formulation and implementation of strategies, promotion of research tackling various aspects of primary education was accorded a priority status by DPEP. Accordingly, the following three issues and strategies to address them were identified:

ISSUES	STRATEGIES
Inadequate research base in elementary education	To initiate contract/commissioned research through individuals/research institutions in elementary education thereby also attempting to draw the attention & focus of leading institutions in the same area
Little appreciation and poor utilisation of research at State, district and sub-district levels	Built-in research & evaluation (R&E) as a component at all levels
Absence of technical skills and lack of capacity at the aforesaid levels to conduct action research	Environment-building efforts through national initiatives Making concrete interventions from the national level for capacity-building in action research and research methodology

The Research, Evaluation and Studies Unit (RESU), set up as a part of the Technical Support Group (TSG), has been involved in promoting research, conducting specific evaluations, capacity-building in the states and networking & dissemination of research findings in DPEP. DPEP state, district and sub-district offices have also initiated and conducted a number of researches. Apex national institutions such as NCERT and NIEPA have also contributed substantially to elementary education research for DPEP as well as capacity-building for DPEP states.

In addition, state-level institutions such as SCERTs and DIETs are the other resource institutions that have contributed to DPEP researches. DPEP researches have also involved state universities, NGOs, private institutions and individuals in the conduct of research.

OBJECTIVES

This report is a documentation of abstracts of various research studies conducted under the aegis of DPEP during 1994-2000. An attempt was made:

* to present abstracts of studies giving in brief the objectives, the methodology and the main findings of the studies,
* to identify the broad trends in research in elementary education,
* to analyse the extent to which research base in DPEP has changed,
* to classify the studies according to the field of study, and
* to categorise the studies on the basis of the level at which they were conducted *i.e.* national/state/district-level, NGOs *etc.*

METHODOLOGY

State Project Offices of DPEP, were sent a proforma for reporting abstracts of the completed research studies conducted or commissioned by them. This was followed up with several reminders. Out of 14 DPEP states, research abstracts were received from 13 of them. Abstracts of studies conducted by NCERT & NIEPA were also collected. The abstracts so received had to be edited and many had to be re-written for the purpose of this report, to follow a common format. Abstracts of some research studies, particularly those conducted by Ed.CIL, were prepared from the study reports by RESU. Studies received till the first week of November 2000 have been included in this report.

SCOPE

For preparing this report, the main task was to develop abstracts of all research studies sponsored by/conducted under the aegis of DPEP during a six-year period *i.e.* 1994-2000. These were carried out in 14 DPEP states [see **TABLE I**] by national-level institutions such as NCERT, NIEPA & Ed.CIL, state-level institutions such as SCERTs, SIEs & RIEs, NGOs/research institutions/individuals, district-level institutions such as DIETs and universities/colleges. In the abstracts, information on the following has been provided for each study:

* *Objectives,*
* *Scope and geographical coverage,*
* *Methodology (including sampling, research design, tools used in data collection & method of analysis),*
* *Major findings, and*
* *Implications and actions points.*

LIMITATIONS OF THE STUDY

It was not possible to ensure complete coverage of all the studies conducted under DPEP during 1994-2000, as some were probably left out, in spite of the best efforts made to cover all of them. The abstracts reported here are of studies made available to RESU, TSG by the states and are based on the information provided by the states/other agencies about the studies. In a few cases, the information was not comprehensive enough. Only 13 states could be covered as information from one state was not reported.

BROAD TRENDS

DISTRIBUTION OF STUDIES

TABLE I below shows the distribution of studies.

TABLE I
DISTRIBUTION OF DPEP-SPONSORED RESEARCH STUDIES & ACTION RESEARCH DURING 1994-2000

S. No.	State/Institution	A National -level (NCERT, NIEPA & Ed.CIL)	B State-level (SCERT, RIE, SIE, SIEMAT *etc.*)	C NGOs/ Research Institutions/ Individuals	D District-level (DIET, BRC/CRC)	E University/ college	Total Research studies	Action research
1.	Andhra Pradesh	01	04	02	--	--	07	--
2.	Assam	--	02	15	09	08	34	14
3.	Bihar	--	03	25	--	--	28	--
4.	Gujarat	--	14	--	--	--	14	18
5.	Haryana	--	24	06	--	01	31	149
6.	Himachal Pradesh	--	--	--		--	--	51
7.	Karnataka	--	01	--	01	02	04	16
8.	Kerala	--	--	04	--	03	07	23
9.	Madhya Pradesh	--	05	03	--	03	11	--
10.	Maharashtra	--	03	03	--	01	07	01
11.	Orissa	--	06	--	22	--	28	--
12.	Tamil Nadu	--	05	--	--	--	05	108
13.	Uttar Pradesh	--	--	08	01	03	12	20
14.	West Bengal	--	--	11	--	--	11	--
15.	Ed.CIL	26	--	--	--	--	26	--
16.	NCERT	02	25	--	--	--	27	--
17.	NIEPA	02	--	--	--	--	02	--
	Total	31	92	77	33	21	254	400

Out of the 254 research studies, 31 studies (or 12%) were conducted at the national level. It is seen that a majority of the studies *i.e.* 92 (or nearly one-third) have been conducted at the state level. About 30% (77, to be precise) of the studies were conducted by NGOs, research institutions or individual researchers.

In terms of research studies reported by the various states, nearly 13% (*i.e.* 34 studies) have come from Assam, followed closely by Haryana (31 studies) with a 12% share. Orissa & Bihar with 28 studies each accounted for a share of 11% each.

In **Haryana**, nearly 77% (or 24 studies) have been conducted at the state-level. However, in **Assam**, the studies have been fairly distributed at all levels. Nearly 44% (15 studies) have been conducted by NGOs/research institutions/individuals, 26% (09 studies) at the district-level, 23% (08 studies) at the university/college level and 6% (02 studies) at the state level. In **Orissa**, more than three-fourths or 78% (22 studies) were conducted at the district-level and the remaining 06 studies at the state level. In **Bihar**, 89% (or 25 studies) of the studies were conducted by NGOs/ research institutions/individuals, and the remaining at the state level.

DISTRIBUTION ACCORDING TO THE FIELD OF STUDY (See TABLE II and TABLE III)

The research studies have been divided into six broad areas as follows:

A Planning and management in elementary education,

B Society, economics and education in elementary education,

C Teacher education and training,

D Pedagogy: curriculum, textbook and other materials,

E Pupil evaulation: BAS, MAS, construction of achievement tests *etc,* and

F Others (civil works, alternative/unrecognised schools, literature review *etc*).

The following two tables shows the break-up of the number of studies conducted in each area **(TABLE II)** and the topics covered in these areas **(TABLE III)**. Studies in each areas are briefly discussed thereafter.

TABLE II

DISTRIBUTION OF DPEP-SPONSORED RESEARCH STUDIES CONDUCTED DURING 1994-2000, ACCORDING TO THE FIELD OF STUDY

S. No.	State/Institution	A Planning & management in elementary education	B Society, economics & education in elementary education	C Teacher education & training	D Pedagogy: currirulum, text books & other materials	E Pupil evaluation: BAS/MAS, achievement tests *etc.*	F Others (civil works, alternative/ unrecognised schools *etc)**	Total Research studies
1.	Andhra Pradesh	02	01	01	03	--	--	07
2.	Assam	09	08	03	08	04	(*b. c.*) 02	34
3.	Bihar	09	17	--	01	01	--	28
4.	Gujarat				03	11	--	14
5.	Haryana	08	07	09	01	03	(*a.b.d.*) 03	31
7.	Karnataka	--	--	--	04	--	--	04
8.	Kerala	02	01	01	01	02	--	07
9.	Madhya Pradesh	--	--	--	03	02	(*c*) 05	11
10.	Maharashtra	03	02	--	--	01	(*a*) 01	07
11.	Orissa	02	07	03	12	03	(*b*) 01	28
12.	Tamil Nadu	--	01	01	--	02	(*c*) 01	05
13.	Uttar Pradesh	03	03	03	02	--	(*b*) 01	12
14.	West Bengal	06	01	--	--	04	--	11
15.	Ed.CIL	13	05	04	02	01	(*c*) 01	26
16.	NCERT	02	01	09	14	01	--	27
17.	NIEPA	02	--	--	--	--	--	02
	Total	61	54	35	54	35	15	254

**Abbreviations: a* = civil works; *b* = ICDS/ECCE; *c* = alternative/unrecognised schools/schoolings; *d*=literature review

All the areas are adequately covered. The highest number of the studies - 61 or roughly one-fourth were conducted in the area of planning and management **(A)**. Fifty-four studies each (21%) were conducted in the area of society, economics & education **(B)** and pedagogy **(D)**. An equal number of studies - 35 each (or 13%) - were conducted in the area of teacher training **(C)** and Pupil evaluation **(E)**. Fifteen studies were conducted in the remaining areas [Others; **(F)**].

Table III

TOPICS OF RESEARCH STUDIES IN DIFFERENT FIELDS OF STUDY

CODE (See TABL E II)	FIELD OF STUDY	TOPICS COVERED
A	Planning and management in elementary education	State finance, institutional grants to schools, double shift schools, communication strategy, motivational strategy for out-of-school working children, impact of DPEP intervention on enrollment and attendance, enrollment and retention, functioning of VECs, evaluation of managerial structures and processes, appraisal of school management, evaluation of DPEP & BEP, monitoring & evaluation of training of *anganwari* workers, school efficiency, comparison between government and private primary schools *etc.*
B	Society, economics and education in elementary education	Educational status/backwardness of tribals/girls/SC/Muslim girls/ slum dwellers, educational facilities to disadvantaged sections, role of VECs, social assessment/gender studies, problems of handicapped children, migratory patterns, community mobilisation & participation, local escort system, private & social cost of education, *panchayati raj* & teacher accountability, PTAs *etc.*
C	Teacher education and training	Teacher training/in-service programme, training needs/perceived status of teachers, evaluation of on-going training programme, teacher policy/ education, development of training/motivational package to promote teacher effectiveness, intervention areas for improving teaching, empowering teachers for effective classroom transactions, on-the-job support for elementary teacher-educators, assessment of teacher knowledge of content area and pedagogy in mathematics, teacher absenteeism *etc.*
D	Pedagogy: curriculum, textbook & other materials	Teaching language to tribal children, cooperative learning approach in learning mother-tongue, oral preparatory programmes, spelling errors, evaluation of MLL-based teaching, activity approach of teaching in multi-level context, use of OB & other TLM, language proficiency, pedagogy of rural primary schools, mathematical language needs, local-specific/activity-oriented resource materials, management of learning situations utilising peers and senior peers, classroom transaction, new teaching-learning methodologies, attainment of MLL competencies, large size classes, learning disabilities, readiness programme, school learning process, achievement of students with/without pre-primary education & formal/alternative schools, mini (pupil) teachers, gender bias material *etc.*
E	Pupil evaluation	Baseline Assessment Studies (BAS), Mid-term Assessment Studies (MAS), Construction of achievement tests etc.
F	Others	ICDS/ECCE programmes, alternative schooling, unrecognised schools, civil works, status-cum-trend report on educational research *etc.*

TRENDS IN RESEARCH

A. PLANNING AND MANAGEMENT IN ELEMENTARY EDUCATION

Research on state finance, institutional grants to schools, double shift schools, communication strategy, motivational strategy for out-of-school working children, impact of DPEP intervention on enrollment and attendance, enrollment and retention of primary school children, functioning of VECs, *etc* have been listed under this category (See **TABLE III** for a detailed list). Sixty-one (*i.e.* roughly one-fourths of the total number of researches) studies have been reported by nine states, Ed.CIL, NCERT and NIEPA in this category (See **TABLE II**).

Nine studies have been reported from **Assam** in this area. Two studies on the functioning of VECs discuss the understanding of the role of VECs by its members. Two studies assess how far the DPEP interventions in some of the districts had influenced enrollment and attendance. A study on managerial structures investigates the dependence of the district structure on State and assesses how far the district structure was able to support the block, cluster and village-level structures.

Nine studies have been reported from **Bihar**. Seven of these are evaluation studies of Bihar Education Project (BEP) in as many districts of the state. They cover all aspects of BEP, and also assess the *Shiksha Premi Yojna* which was launched under BEP. A comparative study of government and private schools was conducted in two districts, in which comparison was made of the facilities in school and also the achievement of students in the two types of schools.

Eight studies have been reported from **Haryana**. A study on state finance identifies capital cost of UEE. A different study on the same topic points out that major components of expenditure on education were salaries and DA which roughly accounted for 97% of the expenditure. A study on *anganwaris* suggests that they should be attached to primary schools in villages and a provision of an annual grant for purchasing stationery should be made. Six studies were reported from **West Bengal.**

Thirteen studies were undertaken by **Ed.CIL.** One of them on shift schooling, conducted in Assam and M.P. points out advantages and disadvantages of running schools in shifts. The study on communication strategy addresses the issue of how DPEP had empowered the community by making school and teachers accountable to them. A study on lateral entry in DPEP districts of Haryana assesses the percentage of late entrants in class I and lateral entrants in other classes and suggests how the drop-out rate is affected by them.

Three studies each have been reported from **Maharashtra** and **UP.** A study on institutional grants in the former suggests that sanction of grants (Rs 2,000 p.a.) should correspond to the size of the schools and a simple procedure for its release should be worked out. A study on school efficiency indicates that the target of 80% enrollment in seven DPEP districts in Maharashtra was lagging behind at 45% on an average. A study conducted in one district of UP compares enrollment and attendance in schools giving incentives with those not offering the same.

Two studies each have been reported by NCERT, Orissa and Kerala.

B. SOCIETY, ECONOMICS AND EDUCATION IN ELEMENTARY EDUCATION

Research on educational status/backwardness of tribals/girls/SC/Muslim girls/slum dwellers, educational facilities to disadvantaged, role of VECs, social assessment/gender studies, problems of handicapped children, migratory patterns, community mobilisation & participation, local escort system etc come under the ambit of this section (See **TABLE III** for a detailed list). A total of 54 studies have come from 10 states, NCERT and Ed.CIL for the same.

About 31% of the studies in this area were conducted in **Bihar**, all of which happen to be *social assessment surveys* conducted separately in 17 districts of the State. Among other things, these studies have addressed the issues of societal perception of education in general and of girls' education in particular, social problems like dowry, early marriage *etc* which adversely affect enrollment in primary education.

Eight studies have been conducted in **Assam**. Two studies have been carried out on the educational scenario in the Char (backward) areas and one on the educational facilities available to the tea tribe community in the State. The studies discuss utilisation of teacher grants for preparing teaching aids, qualifications of teachers, awareness about welfare measures initiated by different government agencies for the welfare of the tea tribe community. The studies call for adequate recruitment of female teachers and conduct of adult literacy programmes in view of the low educational status of parents in these tribes. Three studies on the impact of DPEP on community participation in three districts points out to the positive role played by VECs in improving the general educational environment. The *social assessment survey* conducted in five districts discusses the low enrollment status of disadvantaged/backward communities, in particular the STs and the recruitment pattern of teachers. A study on girls education and women's awareness programme in Morigaon District informs about DPEP-organised awareness camps and suggests for laying emphasis on non-formal education (NFE).

Seven studies have been reported from **Haryana** in this category. Three gender studies were conducted in different districts. These point out to the organisational presence of VECs, PTAs/MTAs, co-ordination between *anganwaris* and schools and NFE centres for girls, incentives for girls from weaker sections vis-a-vis their enrollment: The studies discuss the manifold problems, cultural practices/notions relating to the status of women, facilities for female students which encourage enrollment and retention. A study on VECs points out to the effective and active functioning of those which had a high percentage of educated members. The study suggests for building linkages between VECs and villages. A study on UEE among girls points out to the high retention rate (64%) of girls in the district which was better than that of boys. The social assessment survey in three districts points out to a sharp rural-urban divide in primary education and the problem of retention of girls in the schools. A study on handicapped children suggests for the training of teachers and *anganwari* workers for integrating disabled children into schools.

Seven studies are reported from **Orissa** and they address issues like enrollment and retention of SC children/girls/tribal girls, PTAs, problems of handicapped children, slum dwellers *etc*. The studies suggests activity-based and participatory-methods of teaching-learning and offering of incentives for enrollment. The study on PTAs points out that in those few schools where it existed, the students better served and were better managed, as well. The study on handicapped children informs of their regular attendance and those receiving help from a resource teacher performing better. The study on the slum dwellers points out to the various reasons for their dropping out of school. The study suggests that slum areas should be treated at par with other areas.

Five studies have been conducted for **Ed.CIL** by research institutions/individuals under sponsored schemes. The study assessing the private and social cost of primary education points out that the variable per capita income and assets exercise a positive influence on expenditure on education. The study on *panchayati raj* and teacher accountability calls for ensuring continuous and effective control over teachers by *panchayats*. The study on hearing impaired children suggested regular training and supervision of teachers in order to inform them on the special needs of disabled children. It also suggests for an integrated system in schools, especially at the village level.

A study on primary education amongst Muslim girls in **Uttar Pradesh (UP)** informs that religious heads of the *madarasas* showed willingness to run a primary school within the *madarasa* premises. A study on migratory children in **Maharashtra** points out to the dropout rate in class I & II students who accompanied their parents when the latter migrated to factories for work. A study on local escort system (LES; introduced in 73 schools in three DPEP districts) in **Tamil Nadu** showed a encouraging rise in enrollment & attendance, sizable decline in dropout rate and containment of pupil absenteeism and grade repetition. The study suggests the introduction of LES in a phased manner in other districts as well.

One study each was reported from **Kerala, Andhra Pradesh, West Bengal** and **NCERT**.

C. TEACHER EDUCATION AND TRAINING

Research on evaluation of teacher training programme, training needs, improving competency of on-going training programme, teacher policy, training needs and perceived status of teachers, teacher education, development of training package, teacher effectiveness, intervention areas for improving teaching, empowering teachers for effective classroom transactions, on-the-job support for teacher-educators, teacher knowledge of content area and pedagogy at primary school stage, teacher absenteeism *etc* have been listed in this category (See **TABLE III** for a detailed list). A total of 35 studies (13%) have been conducted by eight states, Ed.CIL and NCERT (See **TABLE II**).

The highest number of studies - nine or 25% - in this category have been reported from **Haryana** and **NCERT**. **Ed.CIL** reported four studies whereas **Assam**, **Orissa** and **UP** have reported three studies each. From **Kerala**, **Madhya Pradesh** and **Tamil Nadu** one study each have been reported.

A study in four DPEP districts of Haryana discusses about the practice of multi-grade teaching in schools and the use of classroom teaching aids. Another study points out to the use of maths kit by teachers and its availability. Another study suggests for involvement of DIET faculty in the monitoring and supervision of each training programmes. A study conducted in two districts, discusses the case composition of teachers in schools. It also discusses about in-service training of teachers. Another study discusses the on the feedback on pre-school education and consequent training for pre-school teachers.

A study conducted by RIE (NCERT), Bhubaneshwar discusses teacher satisfaction among government primary schools. Another study by the same institution suggests that high priority should be given to content enrichment in school subjects followed by demonstration lessons. Yet another study covers teachers' awareness about MLL and whether or not they had undergone SOPT training.

A study on teacher absenteeism conducted in UP and MP for Ed.CIL suggests that there should be no or limited involvement of teachers in non-academic assignments (such as collecting data for poverty line/economic surveys/census *etc*).

On similar lines, a study in UP suggest that the burden of extra-academic responsibilities on head teachers in primary schools should be reduced. Another study informs that despite higher emphasis on teaching methods during training, use of new teaching methods, teaching aids was observed not up to the desired level. Yet another study discusses about teacher's understanding of children with special needs, quiet children, slow learners and physically weak children.

A study conducted in Orissa indicates that teachers transacted MLL-based teaching with some amount of reluctance since they felt that it hampered the completion of syllabus on time.

D. PEDAGOGY: CURRICULUM, TEXTBOOK AND OTHER MATERIALS

Research on developing a strategy for teaching language for tribal children, effectiveness of cooperative learning approach in learning mother-tongue (Oriya), impact of oral preparatory programmes in teaching English as the second language to beginners, analysis of spelling errors, evaluation of MLL-based language teaching programme, mini (pupil) teachers in multi-grade schools *etc* have been listed in this category (See **TABLE III** for a detailed list). 54 studies have been reported by nine states, NCERT and Ed.CIL. Studies conducted in this category have been tied at second-highest (See **TABLE II**).

Fourteen studies have come from **NCERT**, 12 from **Orissa**, 08 from **Assam**, 04 from **Karnataka**, 03 each from **Madhya Pradesh** and **Andhra Pradesh**, two each from **UP** & **Ed.CIL** and one each from **Bihar, Kerala** and **Haryana** respectively in this category.

A study from Kerala suggests the administrative de-linking of primary education from upper primary & secondary education and setting up a separate directorate for it. A study on gender bias material existing in primary school textbooks in Haryana calls for the deletion of a various pictures and text matter in mathematics, Hindi and EVS textbooks of different classes. A study from Orissa suggests for the compilation of bi-lingual tribal word-books for non-tribal teachers serving in tribal schools. Another study calls for imparting of professional training to teachers in order to make them effective workers in multi-grade situation.

A study in Assam points out that pressure exerted by multi-grade teaching and its effect on paying attention of slow learners in focus group areas. Another study conducted in one district of Assam, points out that 95% of the teachers had undergone training conducted by DPEP and discusses whether they applied the skills, technique and methods taught in the same during classroom transaction.

A study by RIE (NCERT), Mysore suggests for the development of a subject-wise handbook incorporating suitable examples on the basics of MLL competencies for primary school teachers in multi-grade settings. It also suggests that trained teachers in multi-grade teaching should not be transferred to single grade teaching since it is a loss of expertise. A study by RIE, Bhubaneshwar calls adopting peer & senior tutoring as effective strategies to alleviate the problems of management of learning situation in multi-grade schools.

A study conducted for Ed.CIL suggests the need to implement un-graded unit pattern in single and two teacher schools. A study conducted in UP calls for pre-primary school education programme to be made non-formal.

E. PUPIL EVALUATION

Thirty-five studies - tied at third highest - have been conducted in this category which includes topics like baseline & mid-term assessment studies (BAS & MAS), construction of diagnostic or achievement tests in different subjects, etc. Eleven studies have been reported from **Gujarat**, four each from **Assam** and **West Bengal**, three each from **Haryana** and **Orissa**.

The BAS studies show the achievement levels of pupils in language and Mathematics at the end of grades I and III/IV on the basis of tests and study design provided by NCERT.

F. OTHERS (CIVIL WORKS, ALTERNATIVE SCHOOLING, UNRECOGNISED SCHOOLS *etc*).

Research on differences in school readiness of tribal children with and without ICDS background, alternative schooling projects, ECCE/ICDS programmes, unrecognised schools, civil works, status-cum-trend report on research on elementary education have been listed under this study (See **TABLE III** for a detailed list). Five studies have come from **Madhya Pradesh**, three from **Haryana**, two from **Assam** and one each from **Maharashtra, Orissa, Tamil Nadu** and **Uttar Pradesh**. (See **TABLE II**).

Two separate studies in **MP** suggest for the re-writing of Hindi text book and proper chapterisation of books in alternative schools. A study in UP points out that ECCE workers were over-burdened with work, however, they received an honorarium which was only one-sixth of the salary of class I teachers in primary schools.

CONCLUSION

On the basis of the above, the following broad trends emerge:

1. Spurt in research studies in primary education

As indicated by the large number of research studies, DPEP has been, on the whole, able to address the issue of neglect of research in primary education sector. The number of research studies on a wide range of issues (See **TABLE III** for a detailed list) have witnessed a dramatic rise ever since the launch of the programme in 1994. It also substantiates the importance the programme attaches to research, for better implementation of the programme.

2. State support to research studies

All the research studies reported here have been provided full financial assistance by the programme. In fact, DPEP has been actively encouraging the conduct of training workshops for the conduct of action research by primary schools by teachers. As indicated by **TABLE I**, nearly 400 action research studies have been conducted in various states, all sponsored by DPEP. In fact, several universities, in Assam, for instance, have been encouraging research in this area. RESU too has initiated two schemes, one institutional (INSPIRE) and the other for individuals (PROMOTE) whereby it encourages research on priority areas/issues in primary education by offering monetary support. In fact, most of the studies conducted for Ed.CIL have been conducted under these schemes. State support is vital for the sustenance of research in this area and the programme is committed to the same.

3. Decentralisation in the level of conduct of research studies

Until a few years ago, practically no studies were conducted at the district level. However, as pointed out in **TABLE I**, this issue too seems to be fairly well addressed.

Though a lot remains to make research further decentralised and broad-based, a beginning has been made in the right direction. There is a definite trend of active participation of DIETs in research, and of growing number of school teachers and other functionaries in action research, an indication of a positive trend in decentralisation.

4. Need-based studies

The DPEP research strategy has laid pointed focus on need-based studies (as opposed to theoretical investigations) which attempt to address priority and under-researched areas in the realm of primary education in general and project frame in particular. Requirement of research input for informed decision-making for catering to the emerging concerns and needs of teachers, schools and students has been realised. A quick browse through the titles of studies reported (See **BIBLIOGRAPHY**) substantiates this fact. Most of the studies attempt to provide explanations and offer suggestions for genuine problems faced by those in the field, particularly teachers in their day-to-day conduct of academic and other activities. While dissemination and cross-state sharing are followed as a learning experience within DPEP, it is hoped that reports such as these, would also serve to outreach the larger academic and research community.

5. Summing up

While this compilation is about research under the aegis of DPEP, it is worthwhile mentioning that research funded by DPEP or by institutions supported by DPEP have had a 'multiplier' effect. The overall environment built around DPEP has provided researches by individuals and institutions with funding support from outside DPEP. This has been evidenced in the research papers presented at annual seminars by the NCERT and other fora. It is expected that this trend would increase in future.

ANDHRA PRADESH

KRISHNAMACHARYULU, V. *ET AL.* 1998. **A study on developing tools of evaluation, recording and reporting instruments based on MLL approach**. *Andhra Pradesh: Department of Evaluation, SCERT, Hyderabad.*

Objectives: (i) To evolve an effective system of evaluation based on MLL approach in order to diagnose the deficiencies in learning by students, and suggest for remedial teaching, (ii) to develop user-friendly tools of continuous comprehensive evaluation, based on MLL approach for written and oral tests at the primary level (*i.e.* classes I to V), (iii) to develop a progress card for recording and reporting the achievement of children based on MLL approach and a central MLL achievement register in place of the usual central marks register maintained in schools, (iv) to evolve a procedure for evaluating the performance of students in grades rather than marks, (v) to try out recording instruments in order to assess their suitability and usability for a further scale up.

Scope and geographical coverage: Warangal and Kurnool districts.

Methodology: A sample of 60 schools (30 from each district), 169 teachers, 360 students from classes 3, 4 and 5 (preferably one girl and one boy in each class) respectively, 600 parents, 150 PTA members (75 in each district) and 150 VEC members (75 in each district) was drawn for data collection. In each district, one high literacy and one low literacy *mandal* were chosen. From each of these *mandals*, five schools each (*i.e.* a total of 15) were picked on the basis of: (a) high SC/ST enrollment, (b) high BC enrollment, and (c) heterogeneous enrollment. Among the tools used for data collection were an interview schedule each for teachers, pupils, parents, PTA and VEC members, data recorded in the class-wise progress cards, central MLL achievement registers maintained by schools and teacher's diaries. The tools of evaluation and instruments for recording & and reporting the achievement of children of classes I to V based on MLL approach, applied in this study were developed in a four-day workshop at SCERT, Hyderabad, involving functionaries working in the field of primary education in five DPEP phase I districts. Subsequently, parents, members of PTA, VEC and the community were informed on the importance of MLL concept through a pamphlet. A one-day orientation programme for the MEOs of the *mandals*, lecturers of the DIET and MRC coordinators of the two districts and a four-day training programme for the headmasters were conducted. Ensuing it, the following were tried out in the selected schools: (a) annual calendar of subject-wise competencies for classes I to V, (b) blueprints and question papers for unit tests and one terminal examination based on MLL approach, (c) proforma of teacher's diary for recording sub-competency wise achievement of students, (d) proforma for central MLL achievement register, and (e) proforma of progress card for primary classes. The teachers were interviewed to seek information on: (a) conduct of tests using new tools of evaluation ad recording the students' achievement in the teacher's diary, (b) time taken for recording the achievement levels in the teacher's diary, MLL register and progress cards, and (c) their opinion on the evaluation procedures and instruments under trial. The pupils were interviewed on the following: (a) unit tests conducted using the new tools of evaluation, (b) their observations on the difference between the old and new tests, and (c) acceptance of the system of reporting achievement through grades instead of marks. The parents were interviewed for: (a) receipt of pamphlets of MLL-based evaluation, (b) their opinion on the progress card developed for competency-based evaluation and its utility, and (c) acceptance for the system of grades instead of marks. The members of PTA and

VEC were interviewed on: (a) awareness about MLL-based evaluation, (b) utility of progress card, (c) opinion on the progress card for five years and grading system in reporting achievement levels.

Major findings: (1) Teachers of sample schools found MLL-based evaluation not only to be useful and helpful in identifying the areas of weaknesses of their students but for taking remedial teaching measured and improving the achievement levels of the students as well. (2) About 77% of the teachers took the following amount of time for recording the achievement and reporting instruments as follows: (a) teacher's diary: 5-10 minutes, (b) central MLL achievement register: 10-20 minutes, and (c) progress card: 5-20 minutes. (3) Nearly 94% of the students appreciated the procedure of evaluation through both oral and written tests. However, 70% of the pupils approved of the system of reporting their achievement through grades. (4) A majority (over 80%) of the parents, members of PTA and VECs indicated awareness about the new evaluation approach and acknowledged that the new progress card was helpful in identifying the competencies in which they were progressing. (5) The recording and reporting instruments were proved to be user-friendly. (6) Those interviewed observed that the evaluation of non-scholastic areas too was essential for the overall development of the children and that it should be included in recording and reporting instruments.

Implications and action points: 1. The new progress cards evolved on the basis of MLL approach should be continued for five years. [Project duration: October 1996-January 1998] {AP/01}

RAO, K. SESIDHARA & REDDY, N. UPENDER. 1998. **A study on multi-grade teaching.** *Andhra Pradesh: State Project Office, APDPEP.*

Objectives: (i) To observe how multi-grade teaching is performed in primary schools, (ii) to ascertain information from the practitioners as to how multi-grade teaching is conducted, (iii) to study the problems involved in multi-grade teaching, and (iv) to suggest appropriate measures for the improvement of multi-grade teaching.

Scope and geographical coverage: Vizianagaram and Ranga Reddy districts.

Methodology: The data for this study was collected from 46 teachers employed in 28 primary schools (*i.e.* 10 teachers from 5 urban schools and 36 teachers from 23 rural schools) under different managements *viz*. municipality (3 schools) and *mandal parishad* (25 schools) selected by purposive sampling method. A questionnaire for the teachers in which they were asked to indicate their methods of conducting multi-grade teaching, difficulties they encountered and suggestions for improvement and personal observations of the researcher during his visit to 18 schools formed the tools of data collection. The researcher attended two TC meetings and collected information from 30 teachers involved in multi-grade teaching. The questionnaires for teachers sought information on the following aspects of multi-grade teaching: seating plan of pupils, methods adopted for multiple class teaching & teaching different subjects to two or more classes, whether home task assigned to students was corrected, problems faced in multi-grade teaching and remedial suggestions.

Major findings: (1) The information furnished by teachers revealed the following aspects of multi grade teaching: (a) teaching one class and giving work to other classes on a rotation basis, (b) following of monitorial system, (c) teaching Telugu and Mathematics during the morning session and ESI & SE II in the afternoon session to the two groups on a rotation basis, (d) conducting combined classes, say for example, IV and V to teach common topics, (e) involving clever pupils in correction work, and (f) written work, oral work and teaching were the three modes adopted in applying multi grade teaching. (2) Classroom observations by the researcher revealed the following: (a) pupils were given more of written and less of reading & oral work in order to avoid disturbance, (b) the practice of appointing class monitors was not resorted to; in case they manhandled a classmate, and the matter got reported to parents, it could create problems for the teacher, (c) in schools where there were para teachers, they were kept in charge of classes I & II, (d) time-tables were not framed as per the multi-grade requirements. Even if some form of time-table existed, it was just not followed, (e) in multi-grade teaching situations, most of the pupils were kept busy with reading the book or were made to mechanically write down answers to various questions from the textbooks, (f) in most of the schools, materials supplied under schemes such as OB, APPEP, AVE were just not being used, (g) all teachers involved in multi-grade teaching situation expressed the positive aspects of multiple class teaching *viz.* repetition of concept for senior classes, early instruction of concepts for junior classes and opportunity for peer group tutoring, and (h) in most of the primary schools, except in the case of single-teacher schools, teachers were found to be adopting a subject approach, instead of being in charge of a particular class. [Project duration: November 1997-February 1998] {AP/02}

FIRDAUSI, A.A.; RAJU, B. YERRAM & REDDY, G. RAM. 1999. **District level support for DPEP in Andhra Pradesh**. *Hyderabad: Administrative Staff College of India.*

Objectives: (i) To assess the adequacy of the resources of the Education Department at the district level, (ii) to explore possibilities of convergence of development schemes in order to facilitate achievement of programme goals, and (iii) to examine the possibilities of enlarging the role of concerned departments in managing anganwadis and schools at the village level.

Scope and geographical coverage: Karimnagar District.

Methodology: The study was conducted in 8 mandals of the district. Two mandals each were selected from four quadrants which represented the physical spread of the district: Sarangapur & Koheda (low enrolment & retention), Chandurthi & Kataram (high enrolment & low retention), Dharmaram & Husnabad (low enrolment & high retention) and Metpally & Peddapally (high enrolment and retention). In each mandal, five villages were selected. The required information was collected from the respective functionaries (such as teachers, VEC members, Mandal Parishad Development Officers, Mandal Education Officers, DEO, DPEP staff, project officers and supervisors of NFE, etc) at the school, VEC, mandal and district levels. An interview schedule was administered on the different functionaries.

Major findings: (1) **School level:** (a) Teachers were well-qualified both academically as well as professionally, (b) teachers had undergone in-service training with the support of Mandal Resource Centres, (c) training had brought about an attitudinal change among the teachers, (d) school-teacher ratio stood at 1:3 and teacher-pupil ratio at 1:64, (e) all the schools were located near to the habitation, (f) all the schools had their own *pucca* building, (g) classroom-student ratio stood at 1:78, (h) all schools did not have adequate furniture (such as tables, chairs and benches), (i) about 27.5% of the schools had common toilet facility, (j) school grant of Rs 2,000 and teacher grant of Rs 500 was found to be very useful for school improvement, (k) teacher centers were playing an important role in providing professional input to the teaching staff, (l) guidance provided by Mandal Resource Persons (MRPs), both at the mandal and school level, was highly appreciated. There was the need to have four or five MRPs in each mandal, (m) VECs had played a positive role in increasing the enrolment of children. In fact, the community had been providing physical and financial resources to strengthen the functioning and maintenance of schools, (n) schools in those villages where PTAs had been formed were performing much better and had additional teaching resources and assets, (o) most of the schools were organizing intra- and inter-school sports and other activities (such as debates & exhibitions) with the full support and encouragement of the community, (p) only a few schools were issuing progress cards, (q) teachers had been performing many non-teaching tasks like visits to Mandal offices for withdrawing salary, attending meetings, submitting reports etc, which was adversely affecting the functioning of schools, (r) involvement of school teachers in conducting household surveys was hampering the running of schools, and (s) the teacher-pupil ratio needed to be rationalised along with provision of adequate facilities such as toilet, drinking water, furniture and proper classrooms in all primary schools. (2) **Mandal level**: (a) Neither teachers nor the MRPs working within the clusters should be transferred frequently, (b) mandal-level functionaries had to travel a lot. As such, provision of soft loans to them for purchasing two-wheelers could be considered, and (c) since mandal-level functionaries were also engaged in performing non-academic duties such as mobilising support for immunization, looking after some JRY activities etc, it was necessary that they were kept free to perform their main duty i.e. achieving UPE. (3) **DIET**: Hostel management may be entrusted to private agencies in order to relieve the academic staff of these duties. (4) **District level:** There was no proper office accommodation for district-level functionaries. (5) **Convergence**: There was the need for convergence of activities at the department level itself.

Implications and action points: 1. Staff position at the DIETs should be improved since they were understaffed. 2. Resources meant for different purposes such as DPEP, NFE and Girl Child Project needed to be brought together with a common mission to universalise primary education. [Project duration: June 1998-December 1999] {AP/03}

RAO, P.D.K. *ET AL.* 1999. **Community participation to strengthen primary education under DPEP.** *Cheepurupalli (Andhra Pradesh): Sodhana.*

Objectives: (i) To ascertain the composition of VECs, the educational awareness and training requirements of VEC members, (ii) to understand the role and responsibilities carried out by VEC members, (iii) to understand the problems and difficulties faced by teachers in achieving the goal of UPE, and (iv) to know the understanding of youth and women group of DPEP.

Scope and geographical coverage: Vizianagaram District.

Methodology: The study was conducted in 10 villages - 6 in Garvidi Mandal and 4 in Cheepurpalli Mandal - of the district. The required data was collected from 90 VEC members, 50 youth volunteers, teachers and women thrift group members through interviews which were followed by discussions.

Major findings: (1) The entire process of the formation of VECs was neither transparent nor democratic as it was seen that the community at large was not aware about its formation. In fact, VEC members selected were not even aware of their selection. (2) The government should initiate discussions and dialogue with the community so that the latter is prepared to own the educational programme. (3) The level of understanding and awareness about DPEP in the community in general and VEC members in particular was observed to be very low. (4) The role of the Government should be the very minimum. It should only play a supportive role to enable the community to own the education programme. (5) The method of conducting training programme for VEC members - most of whom are illiterate, semi-literate and mostly aged above 30 years - through lectures by Resource Persons should be replaced with audio visual media and other cultural methods to create interest among the participants. (6) Nearly 67% of the VEC members who had been trained on DPEP were not even aware of the objectives of the programme. (7) Only 50% of the VEC members were aware of the provision of VEC and teacher grants. (8) It is essential to understand the role of women thrift groups in strengthening primary education, particularly their support in the construction of school buildings. (9) Most of the teachers interviewed felt that experienced local teachers with a sound understanding of the rural situation should be involved in the preparation of training modules. (10) Volunteer youths expressed the need for a village education fund and village education plan. They felt that the former was necessary for conducting various extra-curricular, academic and cultural activities to strengthen primary education in the village. (11) All those interviewed felt that child labour and girl child issues needed special attention. [Project duration: March 1997-February 1999] {AP/04}

Reddy, K. Lakshma *et al.* 1999. **Teachers' centres: A qualitative evaluation study.** *Karimnagar: DIET.*

Objectives: (i) To evaluate the functioning of the Teachers' Centres (TCs) in providing academic support to the teachers, (ii) to evaluate the functioning of TCs in providing feedback on the professional support for teachers, (iii) to assess the planning and management of TCs' activities, and (iv) to suggest measures for the improvement in the functioning of TCs.

Scope and geographical coverage: Karimnagar District.

Methodology: The sample of the study comprised two urban, four rural and two tribal TCs selected through purposive sampling. Among the tools constructed/developed for data collection included observation schedule on planning and management of TC activities, conduct of TC activities and time utilization in TC meetings, questionnaires for functionaries like TC secretary, Mandal Resource Persons (MRPs), Mandal Edcuation Officers (MEOs) etc, rating resourcefulness of strong teachers through rank matrix and evaluation schedule on availability and use of equipment. The data was collected by members of the evaluation team through visits to TCs for observation and interviews with the different functionaries. The data was analysed by calculating percentages.

Major findings: **Organisational aspects of TCs:** (1) The number of schools and teachers attached to a TC ranged between 4-12 and 35-43 respectively. (2) The average attendance of teachers in TC meeting was 82% and it was comparatively less in tribal areas. (3) MRPs and MEOs could attend only one-third of TC meetings and the attendance of district-level resource persons (DIET faculty/APC/AMO etc) was rare and occasional. (4) Annual plans were prepared by most of the TCs with greater weightage to demonstration lessons. (5) Prioritization of needs was not done while preparing the plans. (6) Most of the TCs did not have separate buildings and well-equipped infrastructure. (7) TC grant of Rs. 2,000 was mainly utilised for purchase of stationery. (8) In a majority of the TCs, equipment like TVs, OB kits, almirahs/cupboards and materials like art materials & library books were not available. (9) There is no proper transportation network to attend TC meetings on time in most of the tribal and some of the rural TCs. (10) In most of the TCs, there was no storage facility for preservation of TLM & other materials and equipment. **Organisation of TC meetings**: (11) Half the time in TC meeting was spent on presentation of the topic by Resource Persons (RPs), group work and discussion on demonstration lessons. (12) Participants did not spend any time to refer books, read newsletters etc. (13) While a majority of the participants were satisfied with the academic performance of RPs in giving demonstration lessons, clarification of doubts by them, use of equipment and materials, involving the participants in activities etc, a good proportion of them were not satisfied with the techniques of RPs on initiation of discussions, conduct of group work, motivating the participants etc. (14) There was the maximum utilisation of stationery, raw material and rolling blackboard in all TCs, and maps, charts, science kit, almirahs/cupboards were used in only 50% of the TCs. (15) The activities of TC meeting included demonstration lessons, preparation of model lessons and TLM etc. (16) Older teachers, politically-influenced teachers and young teachers with lethargic attitude were observed to be intentionally absent in the TC meetings. No serious action was initiated against them by the MEOs. (17) Display of material produced and inviting community members to see them was not being arranged by most of the TCs. (18) Demonstration lessons were given by RPs of TCs in most of the cases only in rural and tribal areas. No RPs from outside were called. (19) Involvement and initiation on the part of participants in TC meetings ranged from average to poor levels except in some urban TCs. (20) TC Secretaries/Assistant Secretaries needed further training in the latest trends in content and pedagogy. (21) RPs were not satisfied with the routine activities of TC meeting. (22) The academic contribution of APC, AMO, DIET faculty, MEOs and MRPs was found to be very minimum to the TC meetings since they were dealing with only administrative issues and not giving any demonstration lessons. [Project duration: April-October 1999] {AP/05}

Sastry, V.N.V.K. *et al.* 1999. **Study on problems of tribal children with respect to enrolment, retention and quality.** *Hyderabad: Tribal Cultural Research & Training Institute, Directorate of Tribal Welfare.*

Objectives: (i) To analyse the effects of the existing inputs for tribal education like GVVKs, Ashram schools, appointment of tribal teachers, provision of incentives etc, (ii) to identify and analyse specific problems of tribal children with respect to their enrolment, retention and achievement at the primary stage, (iii) to ascertain the views and perceptions of the community with regard to education and also the constraints in ensuring effective participation of their children, and (iv) to suggest strategic measures for achieving UPE vis-à-vis access, enrolment, retention and quality.

Scope and geographical coverage: Warangal, Kurnool and Vizianagaram districts.

Methodology: The three districts represent the socio-economic zones of tribal population and are spread over in the three regions: Telengana, Rayalseema and coastal Andhra respectively of the State. 32 schools (11 each in Vizianagaram and Warangal and 10 in Kurnool) under different managements such as the community, GVVK, MPP, aided or DPEP formed the sample of the study. MLL-based achievement tests were administered on pupils of classes I and II in language and Mathematics. Schedules were prepared to obtain information about teachers, schools, classroom transactions, habitations, MLLs and Focussed Group Discussions (FGDs) with parents and other villagers were conducted. The research team visited the schools/habitations and collected the required data from teachers, parent, VEC members, ECE instructors etc through interviews and discussions. Discussions were also held with district officials of DPEP and ITDA in the three districts. The data was analysed in percentages. Among the secondary sources of data included publications of Department of Education for the year 1997-98 and statistics published by Tribal Welfare Department, Government of Andhra Pradesh.

Major findings: (1) **Access**: (a) Overall, there were nearly 6,000 tribal school-less habitations with a population of more than 100 in the state, and (b) in the three districts under study, there were about 906 school-less habitations. (2) **Enrollment**: (a) During 1985 to 1997, the overall increase in enrollment was 78% and 100% in the case of girls, (b) the proportion of girls to total enrolment increased from 37% in 1985 to 43% in 1997, (c) owing to the rice subsidy scheme in the state, there were a large number of over-aged and under-aged pupils enrolled in class I leading to high enrolment data in the tribal schools, and (d) school dropouts were re-admitted in class II under the *Janma Bhoomi* programme. (3) **Retention**: (a) Pupil absenteeism was more pronounced immediately after vacations, during tribal festivals, weekly markets and peak season of agricultural operations, (b) attendance of children was being manipulated by teachers to ensure promotion to the next class as well as for making students eligible for midday meal programme, (c) the attendance data given for the midday meal programme was shown at 100% - a manipulated one - whereas the actual attendance in the school was at 60%, (d) the retention rates were found to be 78% in Vizianagaram, 81% in Kurnool and 87% in Warangal, (e) nearly 87% of the teachers were of the view that pupil absenteeism was high during agriculture and NTFP collection season and 75% of the teachers opined that attendance of girls was low due to sibling care, (f) parents pointed out that teacher absenteeism was high in tribal areas, (g) parents were of the opinion that school atmosphere was not attractive, and (h) the reasons for high dropout rate were both due to infrastructural and socio-economic reasons. (4) **Stagnation**: (a) Detention system was being followed in many schools in classes I and II despite the fact that there is a policy of non-detention in schools since 1971 (except in classes VII and X), (b) under-aged children admitted for reasons of maintaining teacher-pupil ratio or for midday meal programme are detained in the same class till they attain the prescribed age, and (c) the extent of stagnation in class I was about 50% among the ST children in the three districts. (5) **Dropout**: (a) In the study districts, the dropout rate was found to be 62.9% in Vizianagaram, 59.9% in Kurnool and 80.2% in Warangal at the primary level among ST children, (b) the reason for high dropout rate after class II were both infrastructural and socio-economic in nature, (c) the main reason for dropout were the availability of classes I and II in only GVVKs schools and the limited intake capacity of Ashram schools in classes III to V, and (d) the other reasons for high dropout rate among ST children were teacher absenteeism, untrained teachers, language problems etc. (6) **Quality**: The MLL tests administered on pupils of class I and class II in language and Maths revealed that: (a) **Class I**: (i) Only 27%, 29% and 33% of the students in Warangal, Vizianagaram and Kurnool districts respectively scored more than 35% marks in Telugu, (ii) only 31%, 33% and 61% of the students in Vizianagaram, Warangal and Kurnool districts respectively scored more than 35% marks in Maths, and (iii) a significant percentage of the pupils obtained zero marks in Telugu and Mathematics. (b) **Class II**: (a) More than 60% of the pupils scored less than 35% in both Telugu and Maths in the three districts, (b) zero results were less in Telugu but significant in Maths, (c) location of the school (e.g. a roadside one) affected pupil attainment and progress, and (d) teacher training programmes for tribal teachers did not provide orientation in terms of tribal ecology, folklore, tribal child psychology etc. (7) **School complexes**: Rs. 2,000 per year was being provided to each school complex under DPEP for organising meetings of teachers every month. (8) **ECE centers:** Instructors of ECE centres and MGCDOs possessed no knowledge of tribal culture and needed orientation on the same. (9) **Community participation:** (a) Interviews with VEC/SC members revealed that 16% of them were not even aware of its existence, while 52% of the members though aware of is existence, did not know its role and responsibilities, and (b) in Vizianagaram District, participation of tribals in school development programmes was observed to be effective. [Project duration: April 1998-June 1999] {AP/06}

TILAK, JANDHYALA B. G. 1998. **Public expenditure on education in Andhra Pradesh - A review of trends, issues and problems.** *New Delhi: Educational Finance Unit, NIEPA.*

Objectives: To present a review of trends in public expenditure on education in the state and a broad perspective of problems and policy issues relating to the same.

Scope and geographical coverage: Andhra Pradesh.

Methodology: The study was confined to an examination of a few select issues and problems relating to financing of education in the state. It was based on the analysis of published and unpublished data collected from different sources such government publications (published at the national and state levels) and other research studies. National publications included *Education in India, Analysis of Budgeted Expenditure on Education, Selected Educational Statistics* of Government of India besides publications of Planning Commission, National Sample Survey, Central Statistical Organisation and

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NCERT. State publications include *Statistical Abstract of Andhra Pradesh, Economic Survey of Andhra Pradesh,* Five Year Plans and Budget documents.

Major findings: (1) As far as allocation of public funds was concerned, Education did not appear to be a priority area in Andhra Pradesh. The State Education budget predominantly comprised of non-plan expenditure. (2) Among the 17 major states, Andhra Pradesh was ranked at 12th in per capita budget expenditure on education. In fact, expenditure on education in the state does not properly correspond with the level of economic development. (3) The share of education in the State Domestic Product (SDP) had declined to below 4% in the state. The state ranked 11th among the 16 major states in terms of proportion of SDP allocated to education. (4) Allocation to education had declined sharply from 6.6% in the 2nd Five Year Plan to a little above 2% in the 8th and 9th Five Year Plans. (5) As a proportion of the total budget expenditure (revenue) of the state, the share of education declined from 28% in 1982 to 22% in the most recent year. (6) Secondary and higher education faced severe neglect, while elementary education has been given a high priority in the Five Year Plans. (7) About 95% of the expenditure was on salaries, leaving little for non-salary items like textbooks, libraries, scholarships etc. (8) Household expenditure on Primary Education was substantial. Major expenditure was on school fees, books, private tuition and transportation. (9) The State requires Rs. 2,200 crores for UEE by the end of the 9th Five Year Plan though many feel that the actual expenditure would be three-times higher. (10) The Department of Education alone should aim at spending about 30% of the total revenue expenditure on primary education. (11) Inter-functional allocation of resources should include programmes for improving attendance in schools like noon-meal programme, textbooks, learning material, uniforms, transport etc. (12) Textbooks and learning materials have to be viewed not as incentives but as a part of instructional packages. (13) Household costs were negatively influencing the enrolment and retention of children in schools.

Implications and action points: 1. Upto grade VIII, the Government should finance education 100% without relying on any non-governmental resources. 2. The Government should think of diversion of resources from unproductive sectors to sectors such as education. 3. The Government should think of specific earmarked taxes like education cess to be imposed as a popular tax payable by a large majority of the better-off population. 4. There was the need to create an Education Fund at the state level. 5. Contributions from the community may be generated on voluntary basis for education through innovative approaches such as education committees. 6. Every school should be encouraged to maintain a school education fund. [Project duration: March 1997-August 1998] {AP/07}.

ASSAM

SAIKIA, B. 1996. **Evaluation of classroom transaction with special focus on 40-days training package in lower primary schools of Darrang and Dhubri districts.** *Assam: B.N. College, Dhubri. (Separate reports prepared for the two districts).*

Objectives: (i) To find out the cascading effect of training on joyful learning and use of teaching aids by teachers in the classroom, (ii) to measure the use and acceptance among the students of the new teaching methods and aids, and (iii) to assess the congeniality of the school environment keeping in mind the facilities provided by VECs to schools and whether there was proper utilisation of funds.

Scope and geographical coverage: Darrang and (Gauripur & Bilasipara blocks in) Dhubri districts.

Methodology: The required data was collected from different sources using the sample survey method. Information was collected from 10 or lesser number of students from each of the selected schools. A questionnaire administered on the teachers was the tool used for data collection. Maximum number of teachers in class I were covered for data collection. Headmasters, VEC members and CRC coordinators were also contacted for information.

Major findings: (1) In general, the basic character of schools and the teaching methods had not much changed, but it appeared that the 40-days training package was effective, since the joyful learning process had started in the schools. (2) In was observed that the students took part in classroom activities. (3) In Dhubri, 50% of the school authorities had not revived the amount of Rs 2,000 from their concerned VECs at the time of evaluation. The schools which revived the amount had started using the money and were making reasonable progress in the projects undertaken. (4) About 80% of the teachers receiving Rs 500 for preparing teaching aids had prepared them. In the remaining 20%, about 10% were found to be partially preparing teaching aids, and 10% were found to have not taken any step in utilising the amount. (5) In Darrang, the percentage of trained teachers was 61%; almost 95% of the teachers received and utilised the grant of Rs 500; about 96% of the schools received the grant of Rs 2,000 from the VECs and 93% of the schools had received new textbooks from DPEP. [Project duration: March 1996-April 1999] {AS/01 & AS/02}

PRODHAN, NILIMOY; PRASANTA CHAKRABARTY & PRODHANI, HROTIRMOY. 1998. **A study of the socio-economic and culture conjectures in the Char areas and their impact upon primary education in general education backwardness and its remedies.** *Assam: NGO.*

Objectives: (i) To outline the educational scenario, in particular the status of primary education in the Char area, (ii) to examine the causes of students' absenteeism in schools in the Char area, (iii) to study the problem of prevailing gender inequality in primary education in the above area, and (iv) to study the impact of DPEP on students and teachers.

Scope and geographical coverage: Char areas of Dhubri District.

Methodology: The required data was collected by conducting face-to-face interviews of people of the area. Interview schedules and questionnaires were the tools used for data collection.

Major findings: (1) Most of the schools in the Char areas did not have a permanent location or a school building on account of the devastating erosion caused by the Brahmaputra river and its tributaries almost annually. (2) The reasons for students' absenteeism in the Char areas could be broadly categoriesd into: seasonal absence, absence on grounds of health and attitudinal absence. (3) Female illiteracy was observed to be strikingly high here. Parents preferred their female wards to learn more of household activities than schooling. Surprisingly, the participation of girl students was much more encouraging in non-provincialised schools than in provincialised schools. (4) Following the introduction of DPEP, students had become more enthusiastic about attending school. The DPEP methodology was found to be acceptable to students and had solved the problem of absenteeism in class I and class II to a considerable extent. (5) Teachers in the Char areas maintained a low self-esteem which had an adverse impact on their performance. (6) Despite the fact that most teachers received money from DPEP for preparation of teaching aids, only 10-15% of the amount was utilised by them owing to lack of enthusiasm or initiative on their part. [Project duration: December 1997-April 1998] {AS/03}

Ali, A.N.M. Irshad & Ahmed, Semima Yasmim Ara. 1997. **A study on the influence of social, cultural and economic condition on primary education in the Chars in Mangaldoi area, Darrang District.** *Assam: Department of Anthropology, Guwahati University.*

Objectives: To study the influence of social, cultural, economic and other related conditions in primary education of the Chars in Mongaldai area of Darrang District.

Scope and geographical coverage: Mongaldai in Darrang District.

Methodology: The study used the survey method. About 60% the Char areas (i.e. 17 out of a total of 29) were selected randomly. The required data was collected from the 17 lower primary schools, teachers, students and their parents. The tools used for data collection were structured schedules, participation, observation and case studies.

Major findings: (1) A majority of the schools lacked infrastructure facilities. (2) In the sample, only 50% were trained teachers. (3) The road facilities in the Chars was found be almost deplorable. This had considerably affected the normal functioning of schools and the attendance of teachers and students. (4) There were fewer girl students than boys in the Char schools. (5) Apparently, the overall social, cultural and economic conditions were detrimental to creating interest and a sense of belongingness towards school among both adults and the children. (6) A majority of the families were large in size consisting of 5-10 persons; the average being 6.2 persons per family. (7) Community factors like: settlement pattern, influence of traditional leaders, socio-cultural factors like: early marriage, family environment, mode of livelihood pattern and geographical factors exercised considerable influence on the primary educational system in the Chars.

Implications and action points: 1. Participation of all sections of the people was essential for ensuring the spread of primary education. The need to create a broad-based and effective mechanism like spread of adult literacy was felt. 2. There was a need for grasping cultural principles and viewing local communities as a part of the larger society and environment. Indigenous vision of people, particularly in case of developmental strategies should be incorporated for their benefit. [Project duration: March-June 1998] {AS/04}

Sarma, Jayanta Kumar & Bordoloi, Ajanta Dutta. 1998. **Review of DPEP programme with special reference to girl's education and women awareness programme in Morigaon district.** *Assam: Department of Geography & Education, Nowgaon Girls College.*

Objectives: (i) To study the primary education facilities and to assess the trend of enrollment of students in primary schools in the district, (ii) to review the impact of DPEP, in terms of girls' education, enrollment, teacher's participation etc, (iii) to review the current status of girls' education, (iv) to find out hurdles in expansion of girls' education, (v) to assess the impact of MEENA campaign conducted in the area for generating awareness, (vi) to assess parents' participation in educating the girl child, (vii) to assess the impact of the awareness camp for women organised by DPEP, and (viii) to prepare a model of women's development programme in the area.

Scope and geographical coverage: Morigaon District.

Methodology: Survey method was used to collect the required data. In the district, 50% DPEP programme clusters were covered on the basis of their spatial distribution (specially on isolation and accessibility) and demographic composition (including 20% of the households). A structured questionnaire consisting of open-ended questions was administered through face-to-face interviews in the selected households. Information was also collected through interaction with a cross-section of primary level students & teachers, guardians and the women-folk in the district. Secondary data was collected from the district level offices, DPEP, VEC and the schools.

Major findings: (1) Nearly 71% of the students attended primary school. (2) The schools covered lacked adequate infrastructural facilities. (3) Enrollment of girls was found to be satisfactory in most of the schools compared to that of boys. The recent increase in enrollment could be attributed to initiation of DPEP and women's awareness programmes. (4) The scheme of providing free textbooks to the primary school students by the government had been successful. (5) Inadequate number of teachers emerged as the most important drawback in the primary education system. (6) The conduct of teacher training was observed to be satisfactory, especially after the initiation of DPEP. (7) Teachers desired changes in the current syllabus so that knowledge provided to children could be kept apace with modern changing trends. (8) The level of literacy among women had increased proportionately in comparison to that of men. However, much remains to be done to bring it at par with them. (9) A majority of the women were neither economically independent nor did they participate in community-level activities. (10) A majority of the women had not got the opportunity to attend DPEP-organised awareness camps.

Implications and action points: 1. Mass awareness and community participation programmes were required to mobilise support for girls' education and women's development. 2. Formal education was observed to be inadequate for serving the education needs of all. Hence, more emphasis had to be laid on non-formal education. 3. Programmes laying emphasis on empowering women should be encouraged so as to enable them to control and change their social, economic and political environment. [Project duration: March 1997-April 1998] {AS/05}

ZAMAN, R. 1998. Classroom transaction impact of DPEP intervention. Assam: *Assam Institute of Research for Tribals and Scheduled Castes, Guwahati.*

Objectives: (i) To examine the effective use of reading materials by teachers during classroom transactions, (ii) to record the effective use of time in teaching, (iii) to evaluate the receptivity of students, (iv) to observe the attentiveness of the students during classroom transactions, (v) to assess the rising trend of enrollment and attendance in the schools following DPEP intervention, and (vi) to suggest measures for re-designing strategies, if so necessary.

Scope and geographical coverage: Kapili block of Morigaon District and Taha block of Nagaon District.

Methodology: Ten schools from each of the blocks (Taha being a non-DPEP district) were selected randomly. Primary data was collected by conducting actual classroom transactions and personally administering structured schedules on teachers and students. Secondary data was collected from the records of educational institutions, district-level educational offices and DPEP.

Major findings: (1) Despite the introduction of Operation Black-board scheme and DPEP, the standard of primary education in Assam, particularly in rural and backward areas was in a bad shape in terms of the school environment and condition of school buildings. (2) Regarding assessment of teachers in classroom teaching, it was found that: (a) Kapili fared better in comparison to Raha, (b) the general feeling that only joyful learning package would enhance classroom transactions was not found to be true. There were a number of parameters which collectively could enhance teachers' performance in classroom transaction. (3) With regard to students' involvement in the teaching-learning process, it was found that in spite of measures like Operation Black-board, Mid-day meal scheme etc, the schools had not been able to attract students. Nearly 22.58% of the students did not attend school regularly. (4) Teachers welcomed the DPEP interventions since it brought novelty in the prevailing stereotype teaching process.

Implications and action points: 1. Provision of basic necessities in schools is a must. 2. Teacher-student ratio should be maintained. 3. Monthly supervision of schools and preparation of quarterly reports should be sent regularly by the inspecting officer to the concerned directorate. 4. Teacher-training programme should be modified. 5. Teachers should adopt a student-friendly approach and play-way technique of teaching. 6. Awareness programmes for parents should be organised. [Project duration: November 1997-March 1998] {AS/06}

SARMA, DEBABRATA & SARMA ABHIJIT. 1996. **An evaluation study on the functioning of village education committees in Assam.** *Assam: North Eastern Institute of Bank Management, Guwahati.*

Objectives: To assess (i) the current status of VECs *vis-a-vis* its role and to offer suggestions, if the need so be, (ii) integration of VECs into the village, (iii) level of awareness about the role & objectives of DPEP and VEC, (iv) expectations and perceptions of DPEP & VEC among local villages and teachers, (v) status of activities undertaken by VEC and its impact thereof, (vi) status of stabilisation of VECs in terms of its co-ordination with other agencies, and (vii) nature and intensity of operational constraints being encountered by VECs.

Scope and geographical coverage: Dhubri, Morigaon and Darrang districts.

Methodology: The sample for the study comprised of 213 VECs (about 10% of the total number of VECs), 627 VEC members (including 235 female members) in 14 blocks (out of 17) in the three districts. The sample of the VECs in each block covered the tribal, Char, tea-estate and General areas. Information was collected through interviews and discussions with villagers. The tool used for the study included a structured questionnaire.

Major findings: (1) Given the several environmental constraints relating to primary education in Assam, the performance of DPEP had been credit-worthy since it had generated awareness and interest among the rural folk about the need and relevance of primary education. (2) The level of understanding of the role of VECs was found to be inadequate amongst most of the members. (3) In most of the cases, VECs had not yet struck a rapport with the local community on account of which they were yet to be accepted as a community institution. (4) The desired integration of VECs with DPO through BRC and CRC had not yet taken place. (5) Poor school infrastructure in rural areas and a low teacher-student ratio were a major handicap in the effective implementation of DPEP.

Implications and action points: 1. VECs should play a more active and purpose-oriented role. 2. There was the need to clarify the role of BRC/CRC co-ordination vis-a-vis VECs for better understanding and co-ordination. 3. There is the need of feedback mechanism across BRC/CRC and VECs. [Project duration: August-November 1996] {AS/07}

SARMA, JIBESH. 1997. **A study on the universalisation of elementary education with special reference to enrollment and retention at Biswanath Chariali block under Sonitpur district.** *Assam: DIET, Sonitpur, Biswanath Chariali.*

Objectives: (i) To assess the present situation of primary education in Biswanath block area, (ii) to study the progress rate of primary education of children in the 6-10 years age group during 1993-96, (iii) to compare the attainment of elementary education among boys and girls during the same period, (iv) to compare the attainment of primary education among the students of backward, Char, tea-garden labourers and General areas during the mentioned period, (v) to find out various problems relating to universalisation of primary education (UPE) with reference to enrollment & retention in the area, and (vi) to suggest remedial measures for further development of UPE programme in the area.

Scope and geographical coverage: Biswanath Chariali block in Sonitpur District.

Methodology: The study was conducted in 40 primary schools (including provincialised, private and venture-stage) of both rural and urban areas representing various ethnic groups of people. The required data was collected by administering questionnaires to heads of institutions, teachers, students, guardians and educationists. Information was also collected from journals, books, census report *etc.*

Major findings: (1) An overall improvement in primary education in the area has taken place during the period of study. (2) General category students had a better rate of enrollment in comparison to the backward class students of the area. (3) Retention rate of female students had been gradually rising though a vast gap existed between students belonging to the Chars, SC, ST and tea labourers and those of the General category. However, the rate of retention was found to be higher in the urban than in rural areas. (4) Problems of enrollment and dropouts still persisted in the area. [Project duration: August-December 1997] {AS/08}

KAKOTY, SUCHITRA. 1997. **A comprehensive study of teacher training and motivation in the districts of Darrang & Morigaon with a special reference to Sipajhar block of Morigaon district.** *Assam: Department of Education, Pragjyotish College, Guwahati.*

Objectives: (i) To identify teachers' training programmes (TTPs) undertaken in the study districts, (ii) to find out how effective was the role played by TTPs before and after implementation of DPEP, (iii) to identity factors which influenced teachers' in executing their responsibilities towards school and society, (iv) to identify teachers' problems, and (v) to evaluate the adequacy of infrastructure for effective implementation of TTPs conducted by DPEP.

Scope and geographical coverage: Sipjhar and Mayong blocks in Darrang and Morigaon districts respectively.

Methodology: The study employed the survey method. A sample of 50 schools, 166 teachers, 540 students and 28 families was chosen through stratified random sampling. Questionnaires and interview schedules were administered to students, teachers, guardians and other concerned persons in the locality. Case history technique was also employed to collect data regarding family and social background of the teacher.

Major findings: (1) Prior to the implementation of DPEP, functioning of teacher training institutions (*i.e.* BTC & DIET) was not upto the mark. (2) Teachers in both the blocks were found to be interested, active and motivated in participating in various short-term in-service TTPs organised by DPEP. (3) There was a low participation of female teachers owing to the fact that they were over-burdened with household chores. (4) Such programmes affected the teaching-learning process in single-teacher schools to a considerable extent. (5) VECs played an important role of liasioning between DPEP and the public; it had also made people aware about the benefits of universalisation of primary education. (6) As far as attitude of teachers was concerned, in Darrang district, female teachers' attained higher mean scores in moral & social responsibility and lower scores in teaching and co-curricular activities. However, for the same in Morigaon district, female teachers had far lower scores than their male counterparts on all parameters: moral, social, teaching profession and co-curricular activities. (7) Teaching profession at the primary level was dominated by males. (8) Most of the trainee teachers had little knowledge about the setup of their chosen profession and virtually no knowledge of other career opportunities for themselves.

Implications and action points: 1. Duration of training courses should be increased. 2. Regular supervision of training institutions is needed. 3. Teachers with less-than-Matric qualifications should be given training in woodcraft, agriculture and the like, since it had great educational potential in primary schools. 4. In order to raise the standards of imparting training, professionals should be recruited to run these institutions. 5. To develop and maintain a favourable professional attitude, teachers required both pre- and in-service training. [Project duration: February-December 1997] {AS/09}

SARMA, NIRMALA; BHATTACHARYA, ATUL CHANDRA & SARMA, DIPTI. 1998. **A critical analysis of the utilisation of the educational facilities of primary level available to the tea tribe of Assam with special reference to Darrang district.** *Assam: State Institute of Education, Jorhat.*

Objectives: (i) To enquire about the special educational facilities provided to the tea tribe children, (ii) to examine the extent of the availability of these facilities to the tea tribe children in the Darrang District, (iii) to examine the utilisation of these facilities by the tea tribe community, (iv) to study the administering of these special educational facilities, (v) to know the attitude of DPEP functionaries towards the education of the tea tribe children, (vi) to ascertain the awareness of tea garden labour community about the special educational facilities available to them, and (vii) to suggest remedial measures.

Scope and geographical coverage: Darrang District.

Methodology: The study was conducted in tea tribe community of the 19 tea gardens (out of 30) in the district, selected on a random basis. This was roughly around 2.2% of the total tea gardens in Assam. The sample of the study comprised of 19 schools, 24 teachers, 118 members of tea garden community, 5 welfare officers and 20 DPEP functionaries. Data was collected through information schedule, interview schedule, questionnaires, observation, attitude scale and direct interaction with respondents.

Major findings: (1) Educational facilities in the tea gardens in terms of number of schools and enrollment was far below the actual need despite considerable progress. At the time of this study, there were 1,392 primary schools in the tea gardens of Assam, out of which 881 were provincialised. In Darrang district there were 35 primary schools in the 30 tea gardens. However, no primary schools existed in three tea gardens. There were no NFE centres in two of the tea gardens. (2) Enrollment ratio of children in the age group of 6-9 years was found to be 44.7%. (3) Enrollment size of schools was not found to be optimum. In 42% of these schools, enrollment was below 100. (4) 62.31% of the total enrollment was in grade I which was found to be considerably higher than other grades. However, repetition rate too was the highest in grade I. (5) Gender disparity in enrollment was observed to be the highest in tea garden schools; girl's share in total enrollment was just 42.3%. (6) Tea garden schools lacked sufficient number of teachers. The percentage of female teachers was 19.5 and percentage of trained teachers was 12.2. The pupil-teacher ratio was 76. (7) On an average, the tea garden schools had comparatively better school amenities than other schools in the state. All of the schools had at least one black-board and 78.9 % of them had maps. (8) It was observed that no special educational facilities/schemes was provided to students of primary classes, though for students of secondary & higher levels, there were a few incentive schemes like scholarships, book grants *etc*. (9) As high as 84% of the guardians whose children were studying in grade IV were totally unaware of the welfare measures, specially those meant for the tea-tribe community. This was perhaps due to their low educational status. (10) Though DPEP functionaries had a positive attitude towards education of the tea-tribe children, nearly 80% of them were unaware of the special schemes initiated by different agencies for the welfare of the latter.

Implications and action points: 1. Child-centric joyful learning environment in schools should be created. 2. Need exists for DPEP's intervention in girls' education, increase in the number of teachers, training of teachers, increase in the percentage of female teachers, particularly from the tea-tribe community on a priority basis. 3. The study does not favour provincialisation of schools. Rather, the government and garden management should take joint responsibility for managing the schools. Formulation of a proper strategy in this regard was suggested. [Project duration: March 1997-April 1998] {AS/10}

Dutta, Indranee & Yumnam, Amar. 1998. **Baseline assessment of primary school students in two new DPEP districts of Assam: a study of Bongaigaon and Kokrajhar districts.** *Assam: Omea Kumar Das Institute of Social Change and Development, Guwahati.*

Objectives: To conduct a baseline assessment of primary school students with regard to enrollment, dropout, working days of schools, essential facilities available in schools, teacher-pupil ratio, educational qualifications of teachers, teaching facilities available *etc.*

Scope and geographical coverage: Bongaigaon and Kokrajhar, both DPEP districts.

Methodology: The required data was collected from 90 schools, 45 in each district. Two rural and two urban blocks were selected in each district. A total of 83 schools from rural blocks *i.e.* 41 in Bongaigaon and 42 from Kokrajhar and seven schools from urban blocks *i.e.* four schools Bongaigaon and three from Kokrajhar were selected. The required data was collected by administering standardised questionnaires prepared by NCERT.

Major findings and implications: (1) There was a massive decline in the number of class II students as compared to the number of class I students in both the districts. (2) There was need to furnish no-classroom schools with essential facilities on a priority basis. (3) In-service training of teachers in both the districts was urgently required to raise the general qualification of teachers. (4) Since instructional time was a critical input in the learning process, the high proportion of schools with less than 225 working days in a year in Kokrajhar was a matter of concern. (5) Attention should be paid to feedback from students since all of them did not posses the same learning abilities. (6) Since all the dropouts happened to be those who had been detained at one time or the other, the improvement of teaching environment was all the more important. [Project duration: December 1996-January 1998] {AS/11}

MAHANTA, UPENDRAJIT. 1998. **Investigating the role of community and village education committees (VECs) in strengthening the management of primary schools of Darrang districts with special reference to Sipajhar block: a few suggestions for future acceleration.** *Assam: State Institute of Education, Jorhat.*

Objectives: (i) To find out the current status of community participation and functioning of VECs, (ii) to examine the role of VEC and the community in the development process of schools in the district, (iii) to investigate the role of school heads in liasioning with the communities & VEC and vice versa, and (iv) to suggest ways and means for future acceleration, if the need so be.

Scope and geographical coverage: Sipajhar block in Darrang District.

Methodology: The sample for the study consisted of 229 schools and 15 CRCs (out of 75) drawn through multi-stage stratified sampling. Data was also collected from school heads, assistant teachers, community members, VEC members, DPEP functionaries/DI/AEEO etc and NGOs. The schools were selected keeping in mind the following: having the least enrollment, LP attached to MV schools, girls' MP schools and schools with SC/ST students. Moreover, for a comparative study, Bodo, Bengali & Hindi medium schools and schools from the following areas: Habigaon - a Nepali-inhabited area, tea gardens, Char (disadvantaged groups) were included in the study. Interview schedule, personal interviews and personal observation in the field were the tools of data collection.

Major findings: (1) Following DPEP intervention, community members had realised that community involvement and support were important pre-requisites for educational development; they were also optimistic about DPEP schemes. Earlier, they had not felt the need of continuous involvement. (2) A substantial amount of community resources were yet to be mobilised and used.

Implications and action points: 1. VEC members should be better trained. 2. Training in all areas of school management was a must. 3. School development plans needed to be prepared well in advance and with care. 4. Some sort of liasioning with other departments such as Health, Welfare, PWD, Forest etc and NGOs for children was needed. 5. Formation of PTAs should be geared up. 6. A booklet outlining the purposes of DPEP should be distributed among the people. 7. DPC members should meet community members regularly. 8. School heads and assistant teachers should establish rapport with community members. 9. Supervision should be strengthened. 10. A rapport between the state supervisory staff and DPEP personnel should be established. [Project duration: March 1997-April 1998] {AS/12}

SHARMA, ABHIJIT & SHARMA, DEBABRATA. 1997. **A status report on the enrollment of primary school students in the DPEP districts of Assam. Assam:** *North East Institute of Bank Management, Guwahati.*

Objectives: To study (i) the enrollment of primary school students in three DPEP districts of Assam incorporating tribal, Char, tea garden, urban, rural and general areas, (ii) infrastructural conditions of the schools in these areas, and (iii) the attendance scenario in the schools.

Scope and geographical coverage: Dhubri, Morigaon and Darrang districts.

Methodology: The study was confined to the provincialised primary schools in the urban and rural areas of the districts. The total number of such schools were divided into categories of tribal, Char, tea garden, urban, rural and general areas in the respective districts. Following systematic random sampling technique, roughly 10% of the total schools under each category in the three districts were then selected. The data for the study was collected from the attendance registers, result sheets and answer scripts of the years: 1991-96 of the selected primary schools. A questionnaire was also administered to teachers to collect data.

Major findings: (1) More girls than boys were enrolled in class I in the district of Dhubri. (2) In Darrang district, a sharp growth in total enrollment of both boys & girls in class I during 1996 was observed on the whole as compared to the preceding five years *i.e.* between 1991-95. (3) In Morigaon district, the growth rate in the enrollment of girls in class I was slightly higher than that of boys in the general areas. (4) Across all the categories, much difference was not found in the enrollment ratio between boys & girls. (5) Efforts of DPEP apparently have played some role in enhancing enrollment, except in the urban areas. (6) There was an overall increase in girl's enrollment in class I across all categories. (7) With regard to attendance, the proportion of regular students in the tribal areas of Darrang district was found to be better than the district average. (8) In the rural areas of Dhubri district, students of class I, in particular, had very low attendance compared to other classes. (9) As far as the infrastructural facilities in the schools in the three districts was concerned, schools in Morigaon district were much better than in other districts whereas the ones in Dhubri were in the poorest condition. Though the overall school condition of the Char areas was the worst when compared to other categories, the condition of schools in Char areas in Morigaon was better than of those in the General areas of the other two districts. [Project duration: January-May 1997] {AS/13}

KALITA, SATYABATI DEKA & SARMA, Chinmoy. 1999. **Improvement of standard of teaching language in primary classes.** *Assam: DIET, Morigaon.*

Objectives: (i) To assess teacher's level of learning in language teaching, (ii) to assess the level of learning of children in language teaching, (iii) to assess the impact of DPEP on language teaching in different categories of schools & focus group areas (FGAs), (iv) to assess the status of language teaching in different categories of schools & FGAs, (v) to study the attitudinal changes in teachers with respect to language teaching towards new methodologies and children, (vi) to study the behavioural changes in teachers with respect to language teaching towards child-centred activity-based methodology, (vii) to suggest measures for improvement in language teaching.

Scope and geographical coverage: Laharighat and Mayong block in Morigaon District.

Methodology: The required data was collected from 11 CRCs, 60 schools, 120 teachers and 1,200 students selected randomly. In the blocks, Char, tea-garden, ST & General areas were incorporated. Question papers for class I and II, questionnaires for teachers and classroom observation (made twice during a span of two weeks) schedule were the tools used for data collection. A six-day training programme was conducted to train field investigators for collecting the required data. The data was analysed using percentages.

Major findings: (1) In the general & Char areas, achievement levels of girl students of class II was found to be better than that of boys in the same class. (2) However, on an average, boys had a better level of achievement than girls in class II. (3) Improvement in the standard of teaching in language was found to be substantial. [Project duration: December 1998-March 1999] {AS/14}

KALITA, JAGANNATH. 1999. **Impact of standard of teaching mathematics in primary classes in Chapor development block of Dhubri district.** *Assam: Department of Extension Education, Assam Agriculture University, Guwahati.*

Objectives: (i) To assess teachers' level of learning in mathematics teaching, (ii) to assess the level of learning of children in mathematics, (iii) to assess the impact of DPEP on mathematics teaching in different categories of schools and focus group areas (FGAs), (iv) to assess the status of mathematics teaching in different categories of schools and FGAs, (v) to study the attitudinal and behavioural changes of teachers with respect to mathematics teaching towards new methodologies, (vi) to suggest measures for improvement of mathematics teaching.

Scope and geographical coverage: Chapor block in Dhubri District.

Methodology: The required data for the study was collected from 12 lower primary schools (out of 119) covering general, SC, ST and Char areas, selected through stratified random sampling, 24 teachers, 240 students of class I & II, 12 head teachers, 24 parents, 24 villagers and 6 CRCs. From the schools, 10 students each of class I and II, out of which five each were boys and girls were selected randomly. The tools used for data collection were interview schedule for mathematics teachers and head teachers, focus group discussion schedules, classroom observation schedule and achievement test for class I and II students. Classroom observations were made twice during a span of two weeks. The data were analysed using percentages, mean, mean & standard deviation, standard error, t-test and F-test.

Major findings: (1) The level of learning of teachers on approach was moderate. In some areas like moving from known concept to un-known one, simple to complex the level of learning of teachers was more. (2) The SC category scored the lowest mean (9.83) whereas SC & Char area schools scored the highest (11.50). (3) The level of learning of teachers in areas of shape and colour, relating to pre-number concepts were found to be excellent whereas in areas of size, weight & height it ranged from little to moderate. Although the mean values varied, the F-value was found to be non-significant. (4) The group-wise level of learning of class I students ranged from fair to good. The SC category of students scored the highest mean (62.67) whereas General category scored the lowest (54.40). However, the F-value was found to be highly significant. (5) In class I, girls excelled boys in the levels of learning by a narrow margin. (6) The group-wise level of learning of class II ranged from fair to excellent. The ST category scored the highest mean (78.13) the Char areas had the lowest mean (64.13). The F-value was found to be highly significant. (7) The level of learning of class II boys and girls were almost similar, though boys excelled girls by a narrow margin. (8) The impact of DPEP intervention on mathematics teaching among teachers in terms of use of teaching aids in classroom transactions ranged from moderate to high. The Char area category schools scored the highest mean (20.50) whereas General category scored the lowest (17.33); but the F-value was insignificant. (9) On comparing the results of this study with the baseline assessment survey, 1994, it was observed that the mean achievement level of class I students in learning mathematics was much lower in all areas gender-wise and caste-wise. [Project duration: September 1998-March 1999] {AS/15}

SARMA, M. 1999. **A study report on improvement of teaching mathematics in primary classes.** *Assam: DIET, Dalgaon, Darrang.*

Objectives: (i) To assess teacher's level of learning in teaching mathematics, (ii) to assess the level of learning of children in mathematics teaching, (iii) to assess the impact of DPEP on mathematics teaching in different categories of schools & focus group areas (FGAs), (iv) to assess the status of mathematics teaching in different categories of schools & FGAs, (v) to study the attitudinal changes of teachers, with respect to mathematics teaching towards new methodologies and children, (vi) to study behavioural changes in teachers with respect to mathematics teaching towards child-centred activity-based methodology, and (vii) to suggest measures for improving mathematics teaching.

Scope and geographical coverage: Kalaigaon and Mazbat blocks in Darrang District.

Methodology: The data for the study was collected from 60 schools, 111 teachers, and 1,200 students. Out of six blocks in the district, the two education blocks were covered. 10% of the total schools and 10 children each from class I and II were selected randomly after stratifying them into boys and girls. Four focus group discussions (FGDs) were held in the Char and tea garden areas. Interview schedule, FGD schedule, classroom observation schedule and achievement test for class I & II were the tools used for data collection. The required data was collected with the help of 40 field investigators (FIs), three supervisors within a period of three days. A two-day training was conducted for the FIs and supervisors. The classroom observations were conducted twice during 15 days.

Major findings: (1) Categorising teachers on the level of understanding, it was found that in the area of new approach only 39% of them scored good (*viz* 60-79% correct response) and only 6% of the teachers scored very good (*viz* 80% and higher). In the conceptual area, only 7% teachers scored good, though none of them scored a very good ranking. (2) On teacher's achievement levels in new approach and conceptual areas, only 43% teachers gave a correct response whereas with regard to attitude on child-centered approach and children, 53% teachers gave correct responses. (3) With regard to behavioural changes of teachers on activity-based/joyful learning, content-based inputs and MLL-based training the average positive response was 37.40%. (4) The achievement level of class I students was as follows: 23.34% of the students achieved 30% or less marks, 28.50% got 31-60% marks, 18.16% achieved between 61-79% marks and 24.50% of the students scored 80% and higher. The achievement levels of class II students were: 8% of the students scored 30% or less marks, 28.50% scored 31-60% marks, 18.33% scored 61.79% marks and 43.83% of the students scored 80% and above marks. (5) On comparing the results with the baseline assessment survey, 1994 it was observed that the mean achievement level in Class I in 1998 (5.34%) was marginally higher than that in 1994 (5.10%) [Project duration: September 1998-March 1999] {AS/16}

BORGOHAIN, ATUL. 1999. A **study report on improvement of teaching mathematics in primary classes.** *Assam: Department of Extension Education, Assam Agriculture University.*

Objectives: (i) To assess the level of learning of teachers in teaching mathematics, (ii) to assess the children's level of learning in mathematics teaching, (iii) to assess the impact of DPEP on mathematics teaching in different categories of schools and focus group areas (FGAs), (iv) to assess the status of mathematics teaching in different categories of schools & FGAs, (v) to study the attitudinal changes of teachers with respect to mathematics teaching towards new methodologies and children, (vi) to study the behavioural changes in teachers with respect to mathematics teaching towards child-centred activity-based methodology and children, and (vii) to suggest measures for improvement of mathematics teaching.

Scope and geographical coverage: Mayong block in Morigoan District.

Methodology: Thirty out of 292 schools (*i.e.* about 10%) were selected following stratified random sampling method from six CRC areas covering various focus groups. A total of 56 teachers were interviewed and 10 boys and girls of class I & II from each schools selected for achievement test. Interview schedule, focus group discussion (FGD) schedules, classroom observation schedule and achievement test for class I & II were the tools used for data collection. A three-day workshop involving 40 investigators was organised for preparing tools and providing training on the procedure for filling up formats and for FGDs. The classroom observation was done twice during a span of 15 days and the field data collected within three days. The data were analysed using percentages, mean, mean & standard deviation and t-test.

Major findings: (1) Nearly 44.6% of the teachers of the area belonged to the OBC category. The male to female ratio percentage of teachers was 67.9:32.1. About 75% of the teachers were HSLC passed. The mean level of learning of teachers was 72.66% with 15.69 SD level. The percentage of good and average teachers was 22.6 and 59.5 respectively. (2) No significant difference was observed between the achievement levels of trained and un-trained teachers. However, achievement level of trained teachers was slightly higher. The mean score of teacher towards child-centred activity in the focus group area (FGA) was found to be 70.4%, which was quite high. (3) The average attitude of teachers towards new technology was 73.3%; however, one teacher scored 37%. (4) The achievement levels of class I & II were 61.21% and 72.4% respectively. The achievement level of class II students showed a significant difference between boys and girls with a t-value of 2.12 at 0.05 level. (5) Students of both classes achieved a low level of proficiency in subtraction, indicating that it needed to be stressed upon. (6) Multi-grade teaching exerted more pressure on the teacher and hence they could not concentrate on slow learners in the FGA. The appointment of an additional teacher was therefore needed. (7) The playful teaching activity was appreciated by all sections in the FGA. TLM was sparingly used.

Implications and action points: 1. Regular training of teacher was needed, as suggested in the focus group discussions. 2. Shortage of TLM in schools. [Project duration: September 1998-March 1999] {AS/17}

BHATTACHARJEE, SARADI & MAHANTA, NILIMA SARMA. 1999. **Impact of new teaching learning methodologies in classroom transaction.** *Assam: DIET, Morigaon.*

Objectives: (i) To assess the methodology of new teaching-learning practices introduced in primary schools, (ii) to assess the progress, impact and constraints in the implementation of this methodology in the classroom, (iii) identification of the strengths and shortcomings in the programme implementation, and (iv) suggest remedial measures to be taken by implementors for the above.

Scope and geographical coverage: Mayong and Lahorighat block in Morigaon District.

Methodology: The required data was collected from 40 schools (20 from each block), 160 teachers and 400 students - 10 student including girls and boys chosen randomly from each of the selected schools. Altogether 11 CRCs (10 from Mayong and one from Lahrighat) including the focus group areas of tea gardens, Char, SC, ST and General areas were covered. Achievement test for class I & II students in mathematics and language, interview schedule for teachers, CRCCs & VEC presidents and classroom observation schedule were the tools used for data collection. A meeting of the BRCs of four blocks was held in which the 11 CRCs were shortlisted. A one-day orientation programme for the 40 field investigators to acquaint them in filling up questionnaires/schedules was conducted. The classroom observation was done twice during a span of 15 days. The field data was collected in three days. The data was analysed using percentages.

Major findings: The new methodology had brought changes in the educational environment of the District. The teachers were found to be sincere and the students were interested in attending school and had engaged themselves in learning. The guardians were aware of the new methodology and felt that their children had benefited from it. The VEC presidents and other members also seemed to be impressed with the new methodology.

Implications and action points: A need for change which would improve the environment of the school and help the teacher in improving the standard of teaching was felt. [Project duration: November 1998-March 1999] {AS/18}

NATH, DIPAK DEB. 1999. **Impact of new teaching learning methodologies in classroom transaction.** *Assam: NGO, Dhubri.*

Objectives: (i) To assess the methodology of new teaching-learning practices introduced in primary schools, and (ii) to assess the progress, impact and constraints in implementing the above programme in classrooms.

Scope and geographical coverage: Golokganj Block in Dhubri District.

Methodology: The required data was collected from 30 schools, 60 teachers, 60 classroom-transaction observations, all 10 CRCCs of Golokganj block, 20 VEC presidents and 40 VEC members. The schools were selected following purposive sampling from focus group areas covering SC, ST, Bengali-/Hindi-medium schools, urban (slum), urban and rural areas on the basis of PTR *i.e.* 1:25 - 40 (6 schools), 1:41 - 80 (15 schools) and 1:81 - 150 (9 schools). In every school one classroom transaction each in class I and II were observed. The CRCCs were selected on the basis of the location of the school concerned. School environment observation schedule, open-ended questionnaire for: teachers, VEC presidents & members and CRCC, and focus group discussion guidelines were the tools used for data collection. A two-day orientation programme was conducted to train the 30 field investigators. Five persons who developed the tools acted as resource person for training. The data were analysed using percentages.

Major findings: (1) About 16.7% teachers in class I and 10% in class II were not making effort to adopt the new methodology while teaching. (2) Nearly all the teachers felt that their spontaneous participation had increased in the activity-based method. (3) In most of the schools, it was observed, the rate of attendance was not more than 50-60%. (4) As far as the attitude of the community towards the new methodology of teaching-learning was concerned, 85% of the VEC presidents and 97.5% VEC members had positive comments about it. [Project duration: November 1998-March 1999] {AS/19}

RAHMAN, NOZIBUR. 1999. **Impact of new teaching learning methodologies in classroom transaction.** *Assam: DIET, Dalgaon, Darrang.*

Objectives: (i) To assess the methodology of new teaching-learning practices introduced in primary schools, (ii) to assess the progress, impact and constraints in implementing the above new programme in the classroom, (iii) identification of the strengths and shortcomings in the programme implementation, and (iv) suggest remedial measures to be taken by implementors for the above.

Scope and geographical coverage: Kalaigaon, Majbat and Sipajhar blocks in Darrang District.

Methodology: The sample of the study comprised of 40 schools, 130 teachers, 42 CRCCs, 40 VEC presidents and 160 classroom transactions. Random sampling was used for selecting the schools, selection of CRCCs and VECs. Classroom observation was done in the selected schools. Interview schedule for teachers, CRCCs & VEC presidents and classroom schedule were the tools used for data collection. The field data was collected in 10 days by field investigators and supervisors trained for the purpose. The data were analysed using percentages.

Major findings: (1) Teachers displayed a negative attitude towards the new teaching-learning process. (2) More than 95% of the teachers had undergone training conducted by DPEP. However, the skills, technique and methods taught in the above were not applied by them in classroom transaction. (3) Teachers were found to be weak in their respective contents as per the classroom schedule. [Project duration: November 1998-March 1999] {AS/20}

SAIKIA, TULADHAR. 1999. **Impact of intervention of DPEP on enrollment and attendance.** *Assam: Basic Training Centre, Dalgaon, Darrang.*

Objectives: (i) To study the progress in enrollment and attendance, following DPEP interventions taking baseline survey as the basis for comparison, (ii) to identify the strength and weaknesses of measures already taken for the improvement of enrollment and attendance, (iii) to suggest proper follow-up measures for the attainment of UEE on the basis of feedback from the studies.

Scope and geographical coverage: Dalgaon and Udalguri blocks in Darrang District.

Methodology: The sample of the study comprised of 60 schools (22 in Udalguri and 38 in Dalgaon) selected randomly from the 559 schools in the two blocks, 18 CRCCs in these blocks out of 108 in the district, 279 VEC members and 282 guardians. To make the study representative, the selection of schools was from the following areas: Char (10), tea gardens (3), ST (15), SC (1), urban (6) and rural General (25). Interview schedule for teachers, CRCCs, VEC members & guardians and focus group discussions were the tools used for data collection. A team of 30 investigators were trained for filling up questionnaires and focus group discussions during a two-day exercise. The data which was collected in 10 days was supervised by three supervisors. Data of the total population under the 6-10 years age group and the total enrolled population in the same age group, in particular for 1995 and 1998, were collected for comparison in enrollment. School attendance registers, Educational Survey Report, EMIS data from DPEP, Darrang were the secondary sources of data for the study.

Major findings: (1) The average increase in enrollment between 1995 and 1998 was 13%. With an increase of 27%, the Char area witnessed the maximum increase in enrollment. Bodo (ST) areas saw a 8% increase whereas for the General areas it was 4%. Gender-wise, girls with a 14% average increase in enrollment had a one percentage point lead over boys. (2) The average attendance in the sampled areas increased by 3%. The percentage increase in the other areas was as follows: Chars - 5, tea gardens - 2, Bodo (ST) - 5, SC - 8. However in the urban General areas there was a 3% decrease in enrollment (In the urban areas, private English-medium schools were not included in the survey). (3) It was observed that the impact of DPEP interventions had yielded good results in the Char areas whereas its impact in the General areas was extremely poor with regard to enrollment. As far as attendance was concerned, except in urban and general areas, the impact of DPEP interventions was found to be positive and encouraging. (4) Between 1995 and 1998, the rate of retention was 64% and the dropout rate 36%. At 49%, SC areas had the highest rate of retention. The retention rate of girls (64%) was marginally higher than that of boys (63%). (5) From the SFG discussions it was found that the VEC meetings were not held regularly and their efforts for broad-basing primary education were not up to the mark. [Project duration: November 1998-March 1999] {AS/21}

AHMED, AYUBDDIN & KEOT, NARENDRA NATH. 1999. **Impact of intervention of DPEP on community participation.** *Assam: DPEP, Morigaon.*

Objectives: (i) To examine the role of VEC and its achievement in terms of access, enrollment, retention and achievement of pupils in the respective locality, (ii) to examine the procedure of implementing programmes for environment-building, (iii) to analyse the role of VECs in environment-building through the new methodology introduced by DPEP, and (iv) to examine the sustainability of VEC as an institution on technical, managerial and financial parameters.

Scope and geographical coverage: Mayong block in Morigaon District.

Methodology: The sample for the study comprised of 60 schools, 60 teachers, 30 VECs and 20 CRCs. The VECs were selected in equal number from the developed and under-developed pockets in the block and included five each from the Char and tribal areas as well. 15 SFC discussions each took place in the under-developed pockets and tribal areas. Interview schedule for VEC members, school teachers, CRCCs & guardians and focus group discussions were the tools used for data collection. A team of 30 trained investigators collected the required field-data in 10 days. The data were analysed using percentages.

Major findings: (1) The overall average enrollment and attendance of pupils in classes I-IV increased by 1.9% and 2% respectively during 1994-95 to 1998-99 *i.e.* after the initiation of DPEP. (2) VECs displayed eagerness to work for the educational environment component and nearly 90-95% of the VEC members were engaged in school-related activities. [Project duration: November 1998-March 1999] {AS/22}

DAS, KHANIN. 1999. **Impact of intervention of DPEP on community participation.** *Assam: Basic Training Centre, Golokganj.*

Objectives: (i) To overview the status of functioning of VECs on the parameters of nature of its activities, frequency of meetings, participation and involvement of members etc, (ii) to assess the performance of VECs in increasing awareness among people, enhancing enrollment, regular attendance & retention, as well as achievement of students, (iii) to identify constraints faced by VECs, and (iv) to suggest measures to improve/expand the role of VECs.

Scope and geographical coverage: Golokganj block in Dhubri District.

Methodology: The data for the study was collected from 36 VECs & all its members and 10 schools (for achievement tests). The VECs represented the following areas: Char (5), SC (5), OBC (2), ST (5), rural General (8) and urban General (5). Direct observation guidelines, questionnaires for VEC members, written questionnaires for teachers, discussion points for teachers, questionnaires for CRCCs and points for discussion were the tools used for data collection. The preliminary findings were discussed among the five key resource persons and 32 field investigators involved in data collection. The data were analysed using percentages.

Major findings: (1) Nearly 50% of the VECs lacked skills in planning and designing various school activities. (2) About 60% of the VECS had established a good rapport with the community including guardians and teachers thereby improving the general education environment. (3) The VECs had more or less been successful in creating awareness about primary education in the villages. [Project duration: November 1998-March 1999] {AS/23}

SARMA, MINATI & DAS, KISHORE KUMAR. 1999. **Impact of intervention of DPEP on enrollment and attendance.** *Assam: DIET, Morigaon.*

Objectives: (i) To assess the progress in enrollment and attendance following DPEP interventions with baseline survey as the basis, (ii) to identify the strength and weaknesses of measures initiated for improving enrollment and attendance, and (iii) to suggest proper follow-up measures for the attainment of UEE on the basis of feedback from the study.

Scope and geographical coverage: Laharighat and Mayong blocks in Morigoan District.

Methodology: The sample of the study comprised of 57 out of 589 schools, 160 VECs, both selected randomly and 180 teachers. Teacher, VEC member & CRC schedules and questionnaires for the local people formed the tools of data collection. The preliminary findings were discussed among the five key resource persons and 32 field investigators involved in data collection. Baseline data (1996-97 and 1994-95; excepting data on enrollment) formed the secondary source of data for the study. The data were analysed using percentages, ratios, bar diagram *etc.*

Major findings: (1) On an average, there was a marginal increase (2%) in the enrollment of class I students in all areas (*viz* tribal, SC, Char, tea garden & General). (2) DPEP interventions to enhance enrollment and check dropout rates had yielded positive results to some extent. (3) The dropout rate in all areas reduced by 3% on an average. [Project duration: November 1998-March 1999] {AS/24}

HAQUE, A. & SARMA, A.C. 1999. **Impact of intervention of DPEP on community participation. Assam:** *District Gyan Vigyan Samity, Darrang.*

Objectives: (i) To assess the progress in enrollment and attendance following DPEP interventions with baseline survey as the basis, (ii) to identify the strengths and weaknesses of measures initiated for improving enrollment and attendance, and (iii) to collect feedback in order to suggest proper follow-up measures for the attainment of UEE.

Scope and geographical coverage: Sipajhar, Kalaigaon and Dalgaon blocks in Darrang District.

Methodology: The sample of the study comprised 30 VECs, 10% schools in Sipajhar, Kalaigaon and Dalgaon blocks respectively and 53, 59 and 14 teachers in these blocks respectively. On an average, VECs and CRCCs covered in the study constituted a 10% sample. While selecting the VECs and schools adequate representation of the following areas: backward, tea gardens, Char and SC/ST was kept in mind. Schedules for VEC-members, VECs, teachers and CRCCs were the tools used for data collection. The data were analysed using percentages.

Major findings: (1) Nearly 77% of the male & 98% of female VEC members were literate and had a positive perspective on the role of VECs. (2) About 45% of the VEC members had engaged themselves in educational survey work in their respective villages. (3) About 51% of the members attended VEC meetings regularly. (4) Nearly 36% and 34% of schools had filtered drinking water and toilet facilities respectively. (5) About 41% schools in the sample area had separate classrooms for class I. [Project duration: September 1998-March 1999] {AS/25}

SINGH, A.K.; KHAN, H.W. & NEGI, MADHURI. 1999. **Evaluation of alternative schooling through moktab in Assam.** *Uttar Pradesh: National Society for promotion of Development, Administration, Research & Training (NSDART), Mussoorie.*

Objectives: (i) To examine the functioning of *moktabs* alternative schools (AS) and assess their achievement in terms of access, enrollment, retention and learning achievements of Muslim children,

(ii) to analyse the perceptions of different stakeholders such as Muslim children, jonabs and community in general on the appropriateness of these learning centres, (iii) to analyse the role of VEC and *moktab* management committee in enhancing the effectiveness of the systems, (iv) to ascertain the extent of impact of various sections of the community in terms of the advantages derived, (v) to ascertain the impact of teaching-learning process in the *moktab* centres on the learning outcome of students and suggest improvements, (vi) to assess the effectiveness of the open evaluation method adopted in these centres, (vii) to assess the cost-effectiveness of the strategy by comparing the *moktab* centres with other NFE centres operating in the district in financial terms, (viii) to review the sustainability of the strategy in technical, managerial and financial terms, and (ix) to examine the probability, nature and extent of expansion of the intervention to other uncovered areas.

Scope and geographical coverage: Darrang, Dhubri and Morigaon districts.

Methodology: The required data was collected from 80 *moktabs* and 40 Muslim households. In the sample, 60 *moktabs* were open in 1995-96 whereas the remaining 20 were opened during 1996-98 but had completed one year as AS centre. The households were selected to collect information on the socio-economic and educational profile. The tools used for data collection were household schedule, *moktabs* AS schedule, *jonab* schedule, listing schedule, village schedule, VEC schedule, *Moktab* management committee schedule and student schedule. These were first pre-tested in Morigaon District and then finalised. The data collection process, which took 16 days and involved 36 field investigators who stayed in the sampled villages, was supervised by four faculties from NSDART including the principal investigator. For ranking and prioritisation of people's perception of *moktabs* as AS centres, PRA techniques was used. The results of the ranking and prioritisation have been used to prioritise *moktabs* AS' related problems and solutions where necessary. The data were analysed using specialised computer packages for the purpose. The maps of the districts and blocks were digitised to show spatial variation of educational features and cross-tabulation was done for establishing association among the different variables.

Major findings and implications: (1) Keeping in mind the factors like lack of physical & social access to schooling and the availability of *moktabs* as an educational institution at the village level, alternative schooling (AS) *moktabs* seemed to be a desirable proposition in view of the broader goal of achieving UEE. (2) The traditional Islamic education through *moktabs* was in the process of transition, since *moktabs* and *madarasas* had started incorporating several mainstream subjects in their curriculum both in Assam and other parts of the country. Thus the introduction of school curriculum into the *moktab* academic calendar in Assam provided access to both Islamic and mainstream school education. (3) *Moktabs* as educational institutions had an advantage over other regular institutions in ensuring the participation of girl children of the Muslim community. (4) Since school education operates within the institutional framework of the *moktabs*, parents, jonabs and the Muslim community as a whole were tolerant and positive towards educational innovations of DPEP. (5) With regard to the strategy of converting moktabs into AS centres through academic and administrative support, the DPO, CRCC and RP were actively involved in its planning and implementation. Health check-up of students were being conducted with help of the primary health services. (6) For ensuring community involvement in the management of *moktabs*, the VEC was being entrusted with the task of planning and implementing the strategy at the village level. (7) The *moktabs* AS so far had a limited impact on DPEP outcome in terms of access, enrollment, retention and learning achievement of students. However, *moktabs* AS being more process-oriented than product-oriented strategy, would after some years of proper implementation yield substantial positive outcomes.

(8) On the access front, *moktab* AS centres had provided access to a large number of out-of-school Muslim children, especially girls. In Assam, *moktabs* played an important role in providing basic religious needs and school education to the disadvantaged groups of children. (9) In terms of enrollment and retention, the strategy achieved a fair degree of success. As per official records, the current enrollment of *moktabs* was 4,007 students out of which 2,944 were girls of the Muslim community. (10) In terms of quality, *moktabs* were below the mark since school curriculum was being transacted by inexperienced and under-qualified *jonabs*. In three years of implementation, the *moktabs* had been able to provide only three semesters of education; obviously, in between the semesters, the children had stagnated. (11) Though the involvement of CRCCs, RP and VECs in planning & management of the *moktabs* was total, the involvement of DIET and BRC was limited to the use of their premises and infrastructure facilities for conducting training programmes for *jonabs*. However, due to inadequate provision of funds, VEC members were not able to do much. (12) The creation of a sound database on *moktabs* and provision of matching infrastructure grants as given to formal LP schools, were the two important inputs needed for the improvement of *moktabs* as AS. Also the need was for payment of an honorarium to the *jonabs*, increase in school hours, supply of textbooks and learning materials, TLM grants, appointment of full-time *moktabs* supervisors and merger of VEC and MMC for *moktabs*' management. [Project duration: September 1998-March 1999] {AS/26}

ZAMAN, RAFIQUZ; KAKATI, G.C. & SARMA THAKUR, G.C. 1998. **Mid-term learner's assessment survey, 1997.** *Assam: Assam Institute of Research for Tribals and Scheduled Castes, Guwahati.*

Objectives: (i) To assess the average performance of students in the recently-formulated competency-based achievement tests in language and mathematics at the end of class I and class IV, (ii) to compare the average performance of students in the MAS tests in 1997 with the BAS conducted in 1994, (iii) to compare the variations in achievement of girls, boys and other social groups separately under BAS 1994 and MAS 1997, and (iii) to study the influence of different variables on students' achievement besides identifying adequacies and inadequacies in the programme.

Scope and geographical coverage: Darrang, Dhubri and Morigaon districts.

Methodology: The sample for the study comprised 10% of the total government/government-recognised schools. Four blocks, including one tribal block, in each district were randomly selected. The tools of data collection included student schedule, teacher schedule & school record schedule and achievement tests in language and mathematics for student of class I, II and dropouts all developed by NCERT.

Major findings: (1) Class I students, both boys and girls, performed better in language in 1997 than in 1994 across all the three districts. (2) In mathematics they had a better performance during the same period in Darrang and Morigaon districts only. Dhubri emerged as an area of concern. (3) Both boys and girls in class II performed well in both the subjects in all the three districts. (4) There was an increase in the teacher-pupil ratio in the last three years following awareness created by DPEP. (5) The percentage of teachers without in-service training reduced significantly in the last three years owing to direct DPEP intervention. (6) The students' percentage attendance ranged between 70-100 across all the districts. (7) With regard to incentive schemes, it was observed that a large number of students were receiving free textbooks in all three districts. Except in Darrang, children even had access to the mid-day meal scheme. (8) Teachers had access to considerably better teaching aids in 1997 than in 1994. [Project duration: November 1997-June 1998] {AS/27}

DEKA, GAURI. 1998. **A comparative study of early childhood education under DPEP and anganwadi programme of ICDS in the district of Morigaon, Assam with regard to their effect on the development of children.** *Assam: DPEP.*

Objectives: (i) To study the two institutions: *mukulika* and *anganwadi* in terms of organisation, programmes and the physical amenities provided to them by the authorities, (ii) to assess the nature of training provided to the teachers, their academic qualifications and other facilities, (iii) to assess the job satisfaction of teachers, (iv) to ascertain the extent of community participation through VECs and *panchayats* in these programmes, and (v) to evaluate the effectiveness of these programmes on the development of children enrolled here.

Scope and geographical coverage: Laharighat and Mayang blocks in Morigaon district.

Methodology: The study was conducted in 20 ECE centres in Laharighat block and *anganwadi* centres in Mayang block. 100 children were selected from each of the two types of centres. A pilot study was conducted in four centres of each type involving 40 children (*i.e.* 5 children from each centre). Information was collected by interviewing teachers, officers, workers and people. Secondary data was collected from periodicals, reports and records of the respective organisations.

Major findings: (1) The similarities between the two systems were: (a) both catered to children from the deprived and socially-backward communities and had been set-up either by the government or its approved authorities, (b) functioning of both organisations involved the co-operation of local communities and they gave due respect to local culture, (c) both had those women as teachers/helpers who were first chosen by local bodies *viz. panchayats* and VECs, and (d) both employed child-centric methods of teaching and had an elaborate system of supervision. (2) The dissimilarities were: (a) ICDS is a Central government scheme whereas DPEP is a programme supported by the national and state governments, (b) the scope of ICDS included the families of children as well, whereas ECE is concerned primarily with children of a particular age group, (c) ICDS programmes did not have a strong public support whereas it was not the same for *mukulikas*, (d) *anganwadi* workers had longer working hours and lesser pay than their counterparts in *mukulikas*, (e) since they were attached to primary schools, *mukulikas* had access to the latter's infrastructure; however, though allowed to sit in its premises, *anganwadis* were not considered to be a part of it, and (f) ICDS scheme include nutrition and health-care programmes whereas no such facilities existed in *mukulikas*. (3) ECE centres lacked adequate infrastructural facilities in terms of teaching aids, play materials and adequate space to accommodate children; furniture, toilet facilities and provisions for pure drinking water were non-existent. (4) Most of the teachers limited their activities to the confines of the classroom. (5) Teaching of the three Rs was not introduced adequately to children even at the age of five-and-a-half years. (6) The duration of teacher training was insufficient; also, no standardised tool to test children was used. (7) Children enrolled in the *mukulikas* lagged far behind than those studying in *anganwadis*, in all aspects of development. [Project duration: June-September 1998] {AS/28}

ZAMAN, RAFIQUR & THAKUR, G.C. SHARMA. 1998. **Social assessment study in five DPEP II districts of Assam: Borpeta, Bongaigaon, Goalpara, Kokrajhar & Sonitpur.** *Assam: Assam Institute of Research for Tribals and Scheduled Castes, Guwahati.*

Objectives: (i) To ascertain views and perceptions of parents and the community in general on: (a) constraints that hinder the enrollment of their children (between 6-10 years of age) for primary education, (b) non-formal education of children in the 6-14 age group (and to assess the views of school dropouts on the same as well), (ii) to assess the families' awareness regarding existing education schemes and the impact of intervention of these schemes, (iii) to analyse the specific problems of the girl child regarding formal and non-formal education, (iv) to determine strategies for overcoming the constraints in the educational development of children in 6-14 age group and pre-primary stage, and (v) to asses the disparities in gender in terms of the educational achievement of all communities and suggest remedial measures.

Scope and geographical coverage: Borpeta, Bongaigaon, Goalpara, Kokrajhar and Sonitpur districts.

Methodology: The sample of the study comprised 50 villages and 10 families from each village selected at random. The villages were selected on the basis of the concentration of tribals, tea tribes and Char areas in the 45 development blocks in the districts. The parents and children in each family were interviewed separately.

Major findings: (1) The percentage of enrollment for General category boys was predominantly high at 41.8. SC boys followed next with 25%. (2) Parental pressure was a vital factor for boys to join school. (3) Nearly 44.5 per cent of the girls joined school owing to pressure from parents. (4) Educational qualifications of the parents was as follows: 45.4% were educated upto the primary level, 30.6% were less-than-matric qualified and 15.8% were matriculate. (5) About 83.8% of the enrolled children were in the 6-11 years age group. (6) Nearly 44.7% of the parents did not prefer son's education to education of the girl child. (7) Parents educated the girl child for the following reasons: 38% for self-reliance and 14.6% to enable her to become an earning member of the family, before and after marriage. (8) Nearly 85.2% of the teachers appointed in the backward areas belonged to the non-SC/ST/OBC category; about 88% of the schools had local teachers. (9) The school buildings were in the following category: 41.7% semi-*pucca*, 30.4% *pucca* and 28.8% were *kuccha*. (10) Only 17 villages had primary health centres and four had veterinary facilities. [Project duration: January 1997-February 1998] {AS/29}

Mathur, Anju; Choudhury, A.K. & Hussain, Z. 1997. **Baseline assessment study in the three districts of Assam (Barpeta, Goalpara, Sonitpur).** *Assam: North Eastern Regional Institute of Management, Guwahati..*

Objectives: (i) To assess the achievement levels of class IV students in reading and reading comprehension, (ii) to study the effect of different variables on learner's achievement, (iii) to identify factors that explain the differences in the level of learners' achievement, (iv) to determine the achievement levels of class II students in literacy and numeracy, (v) to assess the simple literacy and numeracy skills at the end of class III on the parameters of gender, rural/urban and caste, (vi) to estimate the basic literacy and numeracy skills of school dropout children, and (vii) to find out teacher's role in the teaching-learning process.

Scope and geographical coverage: Goalpara, Barpeta and Sonitpur districts.

Methodology: The sample of the study comprised of 4,050 students selected in equal number (i.e. 30) from 135 schools. Following multi-level sampling, each district was treated as a unit and divided into rural and urban domains. Then, 45 schools from each district were selected. On an average about five teachers were selected from each school.

Major findings: (1) The enrollment percentage for both boys and girls declined from class II onwards in nearly all the schools. (2) Most of the schools, across all the three districts, had their own building and were furnished with tables, chair and a bell. (3) On an average, there were more male than female teachers in all the districts. (4) The percentage of untrained teachers in all the districts was observed to be quite substantial. In-service training of teachers was absent. (5) A high percentage of male and female teachers employed in the sampled schools were matriculate. (6) The percentage of male head teachers was observed to be very high in all the schools. (7) The highest percentage of teachers who gave regular home assignments to students were from Barpeta. (8) Most of the head teachers in all the districts engaged themselves in checking diaries, observing classroom teaching, encouraging enrollments and taking decisions on pupil promotion. (9) The percentage of dropout was higher among boys than girls. (10) Not much difference was observed in the mean achievement of students in the three districts. (11) There was a high percentage of students from the rural areas. (12) The highest percentage of students in the sample were from higher castes. Among backward classes, in Goalpara district, ST students were in a high percentage and in Barpeta SC students were in a higher percentage than in other centres. In Sonitpur, OBCs were in a higher percentage than SC/ST students. [Project duration: December 1996-February 1997] {AS/30}

SARMA, DEBABRATA & SHARMA ABHIJIT. 1997. **Evaluation of managerial structure and processes under DPEP, Assam.** *Assam: North Eastern Institute of Bank Management, Guwahati.*

Objectives: (i) To evaluate the managerial structures and processes under DPEP operating at the state and district levels, (ii) to identify strengths and weaknesses of these structures and processes, and (iii) to suggest improvement in management in order to raise the overall programme effectiveness.

Scope and geographical coverage: Gauripur and Bilasipara blocks in Dhubri District.

Methodology: In the two blocks chosen, Gauripur was a forward block and Bilasipara a backward block. Within the blocks two clusters each were chosen randomly. Within the cluster, three villages were chosen based on high, average and low literacy. The following management functions, including in-depth analysis of first and second priority areas, were studied: planning, supervision, coordination, information management, procurement, financial management, personnel management, community participation and training. Apart from extensive interaction with DPEP functionaries in the State and district office, the study team also had consultations with personnel of the Executive Committee (EC), District Programme Implementation Committee (DPIC), SCERT, Textbook Corporation, DIET, Directorate of Elementary Education (Assam), Block Education Office (BEO), VECs *etc.*

Major findings: (1) Though the structures envisaged were in place across various levels, integration of the structures had not yet matured. There was high dependence of the district structure on the State and the district structure was not able to effectively support the block, cluster and village-level structures. The structures, specially at the district-level and below, were yet to internalise the processes like planning, coordination, supervision etc which were essential for a decentralised project implementation approach/mode. Apparently, there was a follow-the-SPO/SPD tendency. (2) There was a strong constraint of inadequate support and follow-up from associate departments/agencies for interlinkage/convergence. (3) There was a fairly high degree of awareness of the aims and objectives of DPEP across all levels. However, VEC members were yet to internalise and accept their role in enhancing the status of primary education in the village. (4) Most of the programme functionaries felt overwhelmed by the pace and volume of activities. The immediate concern expressed, under the circumstances, was the inability to plan and organise one's activities. (5) Efforts put in towards capacity-building and sensitisation of personnel were impressive. (6) An understanding of the scope and utility of MIS as an implementation aid was yet to emerge across most levels. (7) There was need for DPEP, Assam to focus on consolidation of its structures and processes and also to stabilise the institutions of BRCs, CRCs & VECs and to ensure their recognition & acceptance by the community, specially the teachers.

Implications and action points: 1. With regard to structural integration the following was recommended: (a) inclusion of the chairmen of DPIC as member of the EC, (b) inclusion of chairmen/ member secretaries of block-level education committee (BLEC) as members of DPIC. 2. Identification of meaningful roles for the DPIC and BLEC to enable these structures to effectively and actively support the implementation process. 3. There should be conscious efforts for identification of ways and means to actively involve non-official members across all structures in various DPEP activities. 4. There was a need for focussed attention on all systems, covering supervision, monitoring and feedback from the village level upwards. 5. Exposure of functionaries across all levels to the scope & utility of MIS as an implementation aid and to the basics of plan formulation & implementation. 6. There should be sustained effort to ensure support and follow-up from associate departments/ agencies on matters of interlinkage/convergence at the field level. 7. There should be sustained effort to ensure a consistent flow of information across all levels, specially on discussions and decisions of the EC, DPIC and BLEC meetings. The DPEP, Assam newsletter Ahban can be used for this purpose. [Project duration: October 1996-February 1997] {AS/31}

GOSWAMI, ATUL; DUTTA, INDRANEE & YUMNAM, AMAR. 1998. **Baseline study on learning achievement of class II and class IV students in language and mathematics of three districts of Assam**. *Assam: Omea Kumar Das Institute of Social Change and Development, Guwahati.*

Objectives: To assess the achievement levels of students of (i) class IV in language (reading comprehension & verbal ability) and mathematics, and (ii) class II in letter & word reading and mathematics.

Scope and geographical coverage: Darrang Dhubri and Morigaon districts.

Methodology: The sample of the study comprised of 1,617 students (538, 608 & 471 students took the test in Darrang, Dhubri & Morigaon districts respectively) selected from 123 schools (Darrang 43, Dhubri 41 & Morigaon 34) incorporating 118 rural and 5 urban schools. Thirty students from class IV and 20 students from class II were randomly selected from each school. If the number of students were 30 in the former and 20 or less than that in the latter respectively, then all students were selected. The study was conducted using the test materials developed and standardised by NCERT. The quantitative data collected through administering test materials were supplemented by qualitative data gathered by the field investigators in the form of field notes. The present study was a re-run of an earlier one conducted by NCERT in 1993. The schools covered in the present study were the same as those covered in the earlier study.

Major findings: For class II students: (1) Boys scored significantly higher than girls in mathematics in all the districts. (2) The mean achievement level of ST students in mathematics was significantly lower than that of other categories. (3) The mastery level of students in mathematics was well below 50% in all the districts. (4) There was no significant difference between the mean achievement levels of boys and girls in language, except in Morigaon, where boys scored significantly higher than girls. (5) The weakest areas of students in language differed across districts whereas the strongest areas were consistently similar. For class IV students: (6) Boys scored significantly higher than girls in mathematics in Darrang and Dhubri; however, there was no significant difference in Morigaon. (7) No significant difference in achievement between boys and girls in language in all the three districts. (8) Proportion of students attaining mastery level both in language and mathematics was extremely low in all the three districts. [Project duration: January 1996-July 1997] {AS/32}

YUMNAM, AMAR & RAJKHOWA, M.P. 1997. **State Finance in Education: Assam**. *Assam: Omeo Kumar*

Das Institute of Social Change and Development, Guwahati.

Objectives: To ascertain (i) the health of state finance of Assam during 1985-86 to 1995-96 and relate it to the overall educational development in the state, (ii) qualifications and experience of the primary school teachers, (iii) overall expenditure on education and expenditure on different levels of education and comparison of the latter with the projected expenditure year-wise, and (iv) expenditure on centrally-sponsored schemes by levels of education with scheme-wise break-up and primary-school expenditures.

Scope and geographical coverage: The study covered the entire state of Assam.

Methodology: The study was based on the secondary data compiled and published by the Government of Assam (GoA) and the Government of India. Budget documents of the GoA (for the education sector during 1985-86 to 1994-95) in particular, were used for detailed examination. The other sources of data were: EPW Research Foundation's *National Accounts Statistics of India:* 1950-51 to 1994-95; Reserve Bank of India's Report on Currency and Finance 1995-96, Vol. II; Statistical Statements, Mumbai, 1997; Finance accounts of the GoA 1985-86 to 1994-95; CMIE's *Public Finance: India's Central and State Governments,* Mumbai, June 1996; and CMIE's *India's Social Sectors,* Mumbai, February 1996.

Major findings: (1) A striking feature of the economy was the deterioration in the overall economic situation of Assam in the post-liberalisation period. (2) The overall fiscal structure of the state had remained more or less unchanged over the years except for an increase in the proportion of Central grants. (3) In order to achieve UEE by the year 2000, the state needed additional 45,000 teachers. (4) The dropout rate - at more than 77% from class I to IX - was alarming. In devising a strategy for achieving UEE, this aspect should be taken care of. (5) To achieve UEE, with a capacity to retain students, the state needed an additional recurring expenditure of Rs 1,500 crore by 2000 AD besides the anticipated budgetary expenses. (6) Given the state of the economy and the level of development, the responsibility for financing the additional expenses had to come from outside, due to the following reasons: (a) The economy of the state had not attained that stage of growth where it could finance additional expenses on its own, (b) a majority of the households lacked the capacity to satisfactorily self-finance the education of their children, (c) since economic factor was the main reason for dropping out of the school system, state financing of education was of utmost importance, (d) most of the families which could finance education of their children had already opted for private schools and thus were not dependent on state finances, and (e) since it was primarily the children from poor families who benefitted from school education provided by the government/government-supported schools, an expansion of this coverage was of paramount necessity. [Project duration: February-March 1997] {AS/33}

Saharia, Kamala Kanta. 1997. **Appraisal of primary school management in DPEP and non-DPEP districts of Assam.** *Assam: College of Veterinary Science, Assam Agriculture University, Guwahati.*

Objectives: (i) To find out the trend in enrollment of students in primary education, (ii) to assess the efficiency of primary education as perceived by educational administrators, teachers, parents, guardians and village leaders, (iii) to evaluate the managerial impact of DPEP on scholastic achievement of the primary-level students, and (iv) to delineate the difference between DPEP and non-DPEP districts.

Scope and geographical coverage: Dhubri, Darrang, Marigoan, Nagaon, Sonitpur and Bongaigaon (the latter three, non-DPEP) districts.

Methodology: The sample for the study included educational administrators, teachers, parents and village leaders. (The sample was of a multistage stratified type). Inquiry forms and record analysis for enrollment and academic achievement of outgoing students were the tools used for data collection. Scores were assigned to the responses and data were presented in tabular form. The data were analysed using the mean, SD, t-test, F-test, correlation and regression.

Major findings and implications: (1) A minor increase in enrollment in both DPEP & non-DPEP districts. (2) Exposure to the media or events among the respondents of DPEP districts had a positive and significant effect on the efficiency of primary school management. (3) The teachers in DPEP districts perceived the efficiency to be higher than that in non-DPEP districts. (4) Efforts should be made to get the appraisal of primary school management done by the community, in particular, parents and village leaders. (5) Primary schools in the state were poorly staffed. (6) No significant difference was found in the mean scholastic achievement of the students in DPEP and non-DPEP districts. (7) It was observed that the managerial policies of DPEP were not transparent to the people in general, particularly to parents, guardians and village leaders. (8) Parents and guardians were not much concerned with the affairs of primary education in both DPEP and non-DPEP districts. [Project duration: February-October 1997] {AS/34}.

BIHAR

GURU, D.D. 1997. **Bihar state finance study on education.** *Bihar: A.N. Sinha Institute of Social Sciences, Patna.*

Objectives: The objective of the study is to analyse the trend and problems of state finance in relation to expansion and enrichment of primary level education.

Scope and geographical coverage: Bihar State.

Methodology: The study used secondary sources of data.

Major findings: (1) The size of the consolidated revenue and capital budget of the state have increased, but the deficit in the budget has also increased. (2) The pattern of revenue budget and the capital budget differs fundamentally between two periods i.e. between 1985-86 to 1989-90 and between 1990-91 to 1995-96. In the first period, there was generally a surplus in the revenue account and deficit and surplus in the capital budget. As a result, the actual plan expenditure has been falling short of the proposed plan expenditure. There was a gap between budgeted expenditure and actual expenditure in both plan and non-plan budgets. (3) The interest payment liability of the state had been increasing sharply in the past 10 years. As a percentage of the total revenue of the state it increased from 9.3% in 1985-86 to 24.09% in 1995-96. But in the last two years i.e. in 1996-97 and 1997-98 this percentage decreased to 23.4% and 28.4 respectively. (4) Although the expenditure on primary education constituted more than 65% of the total expenditure on education in the state, the size of plan budget in primary education was much lower when compared to its non-plan component. (5) In case of non-budget in primary education, the gap between budgeted and actual expenditure was sizeable. The non-plan expenditure on primary education was continuously increasing. (6) The expenditure on primary education made by other government departments (other than education department) was also noticeable. (7) The expenditure on elementary education incurred by either the education department or other government departments, both in formal and non-formal education sectors, was spread over various schemes and programmes. (8) The size of expenditure on education, especially primary education to SDP has been increasing over the years. The percentage of education expenditure to total expenditure in the state was more than 22. (9) No new posts of teachers had been created in the last few years. Any programmes under DPEP III, particularly UEE in the state, will have to make provision for adequate financial resources for new teachers since implementation of new pay scale would be imminent keeping in mind the recommendations of the Fifth Pay Commission of GoI. (10) For achieving UEE in the state, DPEP III would be of great help. The total cost of the project is Rs 668.24 crore of which Rs 492.16 crore will be non-recurring cost and Rs 176.07 crore would be recurring cost in the five-year period. On completion of the project, the State government would have to bear only Rs 46.32 crore as additional expenditure under primary education in the State. This was quite sustainable for the State government since it was less than 2% of the total expenditure on primary education. [Project duration: February-May 1997] {BR/01}

XLRI. 1997. **Social assessment study conducted in West Singhbum District.** *Bihar: XLRI, Jamshedpur.*

Objectives: (i) To identify social, economic and cultural factors associated with the problems of disadvantaged groups with respect to their enrollment, retention and achievement, and (ii) to suggest a strategy and action plan through formal and non-formal education programme which could be incorporated into the district investment proposal.

Scope and geographical coverage: West Singhbhum District.

Methodology: Based on the parameters of percentage of backwards (SC & ST) and accessibility (i.e. whether connected by *pucca*, all-weather or other type of road) of villages (as per 1991 census data), a 3(3 matrix was developed which gave the distribution of villages in nine cells. From each cell, a sample of 5% villages was selected, with a minimum of one village for a cell. Such a sampling plan helped to study areas representing various socio-economic, cultural and political settings and thus gave a fair coverage of the area. The study was carried out in two stages. In the first stage, in each sampled village, field visits were made to assess (mainly through discussions with village elders, knowledgeable persons, key informants and village-level government officials) community's perception and attitude towards teaching. In the second stage, from each cell of the matrix, two villages were selected to conduct PRA exercises. The tools of data collection included: formats for secondary data for village selection, a format on school infrastructure, a questionnaire on perception and attitude towards education and guidelines on: PRA exercises & interviews/discussions with concerned government officials. Secondary data such as available in documents, reports, files, census publications, case studies etc, was collected from the State, district and the village-level sources.

Major findings: The study highlights the following problems: (1) Paucity of schools. (2) Need of additional classrooms. (3) Insufficient water/other facilities. (4) Problem of ill-maintenance of schools. (5) Shortage of teachers. (6) Rigid school teachers. (7) Incompatibility of school vacation with local-specific pupil's needs. (8) Non-functional VECs. (9) Poor monitoring & supervision. (10) Lack of teaching aids. (11) Lack of innovative class-room transactions. (12) Social inaccessibility factors. (13) Teachers facing language problem. (14) Perception of education as a non-productive endeavour. (15) Problem of education among Muslim girls. (16) Discriminatory attitude of society towards girl's education. (17) Early marriage, dowry system & *parda* system inhibiting girl education. (18) Poverty-related issues. [Project duration: December 1996-March 1997] {BR/02}

ORG. 1997. **Social assessment study conducted in Vaishali District.** *New Delhi: ORG.*

The Objectives, Methodology and Major findings of this study were similar to those of the second/previous study in West Singhbhum District conducted by XLRI. [Project duration: December 1996-March 1997] {BR/03}

CMPRS. 1997. **Social assessment study conducted in Hazaribagh District.** *UP: Centre for Micro Planning & Regional Studies, LBSNAA, Mussoorie.*

The Objectives, Methodology and Major findings of this study were similar to those of the second/previous study in West Singhbhum District conducted by XLRI. [Project duration: December 1996-March 1997] {BR/04}

CMPRS. 1997. **Social assessment study conducted in Purnia District.** *UP: Centre for Micro Planning & Regional Studies, LBSNAA, Mussoorie.*

The Objectives, Methodology and Major findings of this study were similar to those of the second/previous study in West Singhbhum District conducted by XLRI. [Project duration: December 1996-March 1997] {BR/05}

CMPRS. 1997. **Social assessment study conducted in Gaya District.** *UP: Centre for Micro Planning & Regional Studies, LBSNAA, Mussoorie.*

The Objectives, Methodology and Major findings of this study were similar to those of the second/ previous study in West Singhbhum District conducted by XLRI. [Project duration: December 1996- March 1997] {BR/06}

ORG. 1997. **Social assessment study conducted in West Champaran District.** *New Delhi: ORG.*

The Objectives, Methodology and Major findings of this study were similar to those of the second/ previous study in West Singhbhum District conducted by XLRI. [Project duration: December 1996- March 1997] {BR/07}

AIMS. 1997. **Social assessment study conducted in Munger District.** *Karnataka: AIMS, Hyderabad.*

The Objectives, Methodology and Major findings of this study were similar to those of the second/ previous study in West Singhbhum District conducted by XLRI. [Project duration: December 1996- March 1997] {BR/08}

AIMS. 1997. **Social assessment study conducted in Dumka District.** *Karnataka: AIMS, Hyderabad.*

The Objectives, Methodology and Major findings of this study were similar to those of the second/ previous study in West Singhbhum District conducted by XLRI. [Project duration: December 1996- March 1997] {BR/09}

Hassan, Mohd. 1997. **Social assessment study conducted in Sitamarhi District.** *Karnataka: AIMS, Hyderabad.*

The Objectives, Methodology and Major findings of this study were similar to those of the second/ previous study in West Singhbhum District conducted by XLRI. [Project duration: December 1996- March 1997] {BR/10}

Ramchandran, H. 1997. **Social assessment study conducted in Chatra District.** *UP: Centre for Micro Planning & Regional Studies, LBSNAA, Mussoorie.*

The Objectives, Methodology and Major findings of this study were similar to those of the second/ previous study in West Singhbhum District conducted by XLRI. [Project duration: December 1996- March 1997] {BR/11}

Pandey, Janak. 1998. **Social assessment study conducted in Muzaffarpur District.** *UP: G.B. Pant Social Science Institute (GBPSSI), Allahabad.*

The Objectives, Methodology and Major findings of this study were similar to those of the second/ previous study in West Singhbhum District conducted by XLRI. [Project duration: December 1996- March 1997] {BR/12}

Pandey, Janak 1997. **Social assessment study conducted in Rohtas District.** *UP: GBPSSI, Allahabad.*

The Objectives, Methodology and Major findings of this study were similar to those of the second/ previous study in West Singhbhum District conducted by XLRI. [Project duration: December 1996- March 1997] {BR/13}

Pandey, Janak. 1997. **Social assessment study conducted in Bhojpur District.** *UP: G.B. Pant Social Science Institute, Allahabad.*

The Objectives, Methodology and Major findings of this study were similar to those of the second/previous study in West Singhbhum District conducted by XLRI. [Project duration: December 1996-March 1997] {BR/14}

XLRI. 1997. **Social assessment study conducted in East Singhbhum District.** *Bihar: XLRI, Jamshedpur.*

The Objectives, Methodology and Major findings of this study were similar to those of the second/previous study in West Singhbhum District conducted by XLRI. [Project duration: December 1996-March 1997] {BR/15}

AIMS. 1997. **Social assessment study conducted in Bhagalpur District.** *UP: Centre for Micro Planning & Regional Studies, LBSNAA, Mussoorie.*

The Objectives, Methodology and Major findings of this study were similar to those of the second/previous study in West Singhbhum District conducted by XLRI. [Project duration: December 1996-March 1997] {BR/16}

ORG. 1997. **Social assessment study conducted in Ranchi District.** *New Delhi: ORG.*

The Objectives, Methodology and Major findings of this study were similar to those of the second/previous study in West Singhbhum District conducted by XLRI. [Project duration: December 1996-March 1997] {BR/17}

ORG. 1997. **Social assessment study conducted in Darbhanga District.** *New Delhi: ORG.*

The Objectives, Methodology and Major findings of this study were similar to those of the second/previous study in West Singhbhum District conducted by XLRI. [Project duration: December 1996-March 1997] {BR/18}

NSDART. 1998. **Bihar Education Project (BEP): An evaluation (Muzaffarpur experience).** *UP: NSDART, LBSNAA, Mussoorie.*

Objectives: The study aimed at evaluating the impact of BEP on access, enrollment, retention & achievement with respect to MLL, and impact of training on teacher's performance; progress made in development of TLM, availability & utilisation of school infrastructure, micro-planning, community mobilisation & VECs, CRCs contribution in improving school functioning, role of NFE centres & alternative schooling programmes, structures and processes involved in programme implementation & their strength and weakness, convergence of BEP with on-going programmes such as ICDS, mass education etc. The issue of community mobilisation, participation and empowerment of focus groups was the running thread in all the above objectives. (*Mahila Samakhya* was excluded from the scope of the study since a separate national agency would be evaluating the programmes).

Scope and geographical coverage: Muzzafarpur District.

Methodology: The sample of the study comprised 48 schools, selected two from each of the 22 villages & 2 urban wards. Since the BEP programme was not launched simultaneously in all districts, the concentration of implementation effort varied. Accordingly, the areas were classified as intensive blocks, expansion blocks and new blocks. Weightage was given in the same order (i.e. 50%, 30% and 20% respectively) while determining the sample size. Adequate representation was given to SC/ST dominated areas in the sample. Some representation was also given to the urban areas. Villages were selected on the basis of their size - small, medium and large. The criterion for this classification was same as in SAS study (Chatra District). Villages with population more than 50% of SC/ST were treated as SC/ST dominated. The sample included NFE centres, as well as schools under *Shiksha Premi Yojna*. The tools of data collection included household schedule, village schedule, listing schedule, school schedule, teacher schedule, MLL-based tests, student schedule, checklist based on Ujala teacher training: CRC, district officials, developing PRA tools and NFE schedule. Other sources of data included access, enrollment and retention (taking December 1997 as the cut-off year) figures from school records, BEP & DSE records and MIS, wherever available. Project documents, Brown books, annual plan, annual reports, MOUs, baseline study reports, MIS data from districts on all components, data & figures on teacher training (gender and social group-wise), BSPP service regulations were also consulted. The following programmes/schemes were also consulted: *Prasun, Ujala I* and *Shiksha Premi Yojna.*

Major findings and implications: (1) Enrollment: There was an overall increase in enrollment to the tune of 67% between 1992 and 1997. Caste-wise break-up of this increase was 68% for General category and 60% for SC boys; for girls it was 66%. (2) Access: In terms of distance to school, access had considerably increased with most schools being within one-kilometre reach of the children. (3) School buildings: Construction of new schools, repair of dilapidated school buildings and provision of additional rooms were given priority attention as in intensive, expansion and new blocks respectively. In this exercise, other agencies like the Jawahar Rozgar Yojna (JRY) also helped. (4) Teacher-student ratio: It had deteriorated from 1:54 to 1: 62 in the intensive blocks; however, it had marginally improved in case of new blocks (from 1:54 to 1:53). (5) The dropout rate was maximum at two stages from class I to class II and from class V to class VI. Girls had a higher dropout rate. (6) Teacher training: (a) As many as 91% of the school teachers in the sample had undergone *Ujala* training, (b) this training had been well-received by teachers. They felt that it had helped them in gaining confidence and adopting child-centred & community-based approach to learning, (c) nearly 71% of the teachers felt that BEP had been able to achieve its objectives only to a limited extent, and (d) teachers taught multiple classes, more so in the intensive blocks. (7) MLL programme: (a) A higher percentage of boys (69) than girls (60) in class II secured above 50% marks in MLL-based tests in language and mathematics, (b) in mathematics, the performance of class V students was poor as compared to that of class II students, (c) boys fared better than girls and students from the new blocks showed better performed compared to those from other blocks. Girls fared better in language test, and (d) Intensive blocks received the maximum number of MLL textbooks, followed by the expansion and new blocks. The maximum number of books distributed were in language category. (8) School infrastructure: (a) 60% of the selected schools had drinking water facility which had been provided by sources other than BEP. There were common toilets, if at all, for boys and girls and had been provided by sources other than BEP, (b) a large number of schools did not have basic infrastructure like boundary wall, wall clock, school bell, first-aid kit, playground etc. Even chairs and tables were not available in most of the schools, (c) in 71% of the schools, students did not have any seating arrangement, (d) most of the schools had just one or two rooms, and (e) major repairs were required in 53% of the schools. Only 18% of schools in the sample were found to be in good condition. (9) Quality improvement: (a) Monitoring and inspection of schools was seldom done owing to frustration on account of poor salary and absence of transport facility, (b) several types of shortcomings in the pedagogic processes came to light on the basis of PRA and discussions with villagers and village-level officials, and (c) only one type of TLM i.e. pocket board was developed by 89% of the teachers. Flannel board was developed by 26% of the teachers. Female teachers developed more TLM as compared to their male counterparts. (10) Community mobilisation and participation: (a) VECs, which had been constituted to provide critical inputs, were not very effective, (b) various measures for enhancing enrollment had yielded limited results, (c) *Mahila Samakhya* had taken strong roots and was among the best of structures created by BEP, and (d) the most important issues that emerged from PRA sessions were: opening of NFE centres, making VECs more effective and provision of employment opportunities. (11) Convergence and linkages: (a) There was a need for convergence and linkages with a host of agencies and institutions for BEP's success. A framework for such a co-operation existed in many cases. It was only a matter of determining what each one could do for the other, within a regime of complementary objectives, and (b) there was a vast potential for co-operation with ICDS. [Project duration: December 1997-March 1998] {BR/19}

NSDART. 1998. **Bihar Education Project: An evaluation (Sitamarhi District).** *UP: NSDART, LBSNAA, Mussoorie.*

The Objectives and Methodology of this study were similar to those of the previous study conducted in Muzzafarpur District conducted by NSDART.

Scope and geographical coverage: Sitamarhi District.

Major findings: (1) The database in DLO, Sitamarhi was relatively better than other districts, though there still was ample scope of improvement. (2) There was absence of networking of DLO with other departments. (3) The problem of access had not received adequate attention as yet. A comprehensive planning was required to include the uncovered areas/villages either under formal or non-formal education. (4) The problem of enrolment and retention were inter-linked with the attendance of students. Therefore, the focus should be on ensuring reliability of the same; CRCs should focus on it as well. (5) BEEOs were expected to be involved in new education planning and management. However, their engagement in non-academic work hampered this. (6) The teacher-pupil ratio in the sampled schools was very high; about 15% of the posts were found vacant. (7) All teachers did not prepare TLM; even some of those who prepared TLM were not using it. (8) There was need to increase the motivational level of teachers. The policy of transfer/posting needed to be reviewed from time to time. (9) Adequate attention was not being paid to publicity, awareness-building through different media of mass communication. (10) Most of VECs though established were not functioning. The momentum created in the earlier phase had faded away. (11) There existed a system of guiding VECs in day to day work and a calendar of activities was developed for them. (12) More freedom should be provided to teams for micro-planning to make changes in the whole structure and time should be allocated for the same. It was not to be treated as a one-time activity for a 15-day period. For micro-planning, more funds were required. [Project duration: December 1997-March 1998] {BR/20}

NSDART. 1998. **Bihar Education Project: An evaluation (Ranchi District).** *UP: NSDART, LBSNAA, Mussoorie.*

The Objectives and Methodology of this study were same as of the 19th study i.e. BEP: An evaluation (Muzzafarpur experience).

Scope and geographical coverage: Ranchi District.

Major findings: (1) Although the educational status of Ranchi was relatively better in terms of literacy, regional disparities existed. The medium of instruction in schools at the primary level was Hindi. Since in many blocks a majority of the rural population did not speak Hindi, this issue i.e. of language of was a deterrent factor and adversely affected the quality of primary education. (2) Organisational structure and manpower employed for achieving the goals of the project was found to be inadequate.

(3) The project could not utilise the amount sanctioned in the budget due to various reasons. The degree of emphasis had changed since 1995-96 and a greater degree of mobilisation activities were undertaken. (4) The project had created a higher degree of awareness and expectation amongst the villagers. However, further strengthening of capacity-building and community mobilisation activities was need. (5) Periodic organisation of *bal melas, nukkad nataks* and presence of *Mahila Samakhya* had generated some amount of enthusiasm amongst the rural masses. Construction of CRCs/BRCs and other participatory exercises on micro-planning had helped in raising peoples' awareness and had motivated them towards attaining a better educational status. (6) The gross access rate somewhat improved due to construction of school buildings and conversion of single-room schools into double-room ones during the project period. Still, quite a few number of villages without a school were there. (7) Achievement in enrollment showed a high degree of success. It supposedly increased from 64% in 1991 to 84% in 1998. (8) The study could not record dropout rates (which was possibly as high as 60%) for SC, ST and girl students in remote rural areas. (9) There was a shortage of teachers in primary schools. A large number of vacant posts existed as well. (10) The low performance of students in terms of MLL results proves that the quality of education had not improved as much as was expected. (11) Quite a number of teachers were trained at the DIET (*Ujala*). The *Ujala* training had created much expectation amongst teachers; this should be sustained by providing periodic and a higher degree of training to them in the future. Teachers' interest in providing joyful learning environment in schools in villages had to be created in order to realise the goal of UEE. (12) Provision of TLM and other materials had helped in improving enrolment and basic quality of education. (13) Construction and formation of CRCs/BRCs had improved the quality of TLM. There was a need for a greater role of VECs in this regard. The VEC members needed training. (14) The *Mahila Samakhya* had been doing commendable work in the district. However, it was operational in only 237 villages situated in 3 blocks (out of the total of 20 blocks) in the district. (15) The PRA of villages showed that very few interactions among various functionaries related to education took place. Villagers felt that these functionaries were not doing their job properly. (16) Convergence with the socio-economic developmental activities and sharing of information in the district was needed for the project's success. There are many departments like BPDP, tribal welfare, DRDA, PHED etc engaged in similar activities, leading to duplication of efforts. (17) Inter-linkages with other related educational departments was not so sound. A better co-ordination and higher form of inter-linkage was absolutely necessary for achieving the desired results. [Project duration: December 1997-March 1998] {BR/21}

NSDART. 1998. **Bihar Education Project: An evaluation (East Singhbhum experience).** *UP: NSDART, LBSNAA, Mussoorie.*

The Objectives and Methodology of this study were same as of the 19th study i.e. **BEP: An evaluation (Muzzafarpur experience).**

Scope and geographical coverage: East Singhbum District.

Major findings and implications: (1) There was a substantial gap between the perspective and annual work-plan and its implementation both in physical & financial terms. (2) School textbooks were being given to all school-going children; besides, school improvement grant too was being provided to schools. CRC and BRC grants were distributed as well. (3) The District had so far completed the first round of *Ujala* training (in-service teacher training programme) meant for teaching grade I & II children. (4) 747 NFE centres had been opened in the District to provide further access to the inaccessible areas. (5) The project had launched various types of awareness campaigns such as *shiksha mela, nukkad natak*, wall writing, preparation of audio cassettes of folk songs with education as the main theme etc. Under the MLL programme, as indicated by field data, among grade II students, around 60% of the students scored more than 50% marks in maths, while only 11-46% scored more than 50% marks in language. Low scores were attributed to medium of instruction problem in classroom teaching & learning. On the other hand, 21% of grade V students scored more than 50% in maths indicating that training had made a positive impact on learning achievement. [Project duration: December 1997-March 1998] {BR/22}

NSDART. 1998. **Bihar Education Project: An evaluation (Chatra challenge).** *UP: NSDART, LBSNAA, Mussoorie.*

The Objectives and Methodology of this study were same as of the 19th study i.e. **BEP: An evaluation (Muzzafarpur experience).**

Scope and geographical coverage: Chatra District.

Major findings and implications: (1) The Executive Committee (EC) and District Task Force (DTF) were found to be important organs of BEP management structure. However, it was found that very few meetings of EC were organised and DTF was largely confined as being an in-house BEP committee. The BEP core team at Chatra always remained under-staffed. (2) The trend and pattern of AWPIB showed a low-level utilisation of total allocated amount. On the whole it was found that only 39% of the total sanctioned amount was actually disbursed. (3) On a broader parameter, the SWOT analysis of BEP was also carried out including management people and teachers. The strength of BEP lay in sincere efforts to put across the message at the grassroots level, financial honesty, community involvement & mobilisation and awareness. Attractive building construction and distribution of textbooks to students were also identified as its strength. On the other hand, lack of: proper monitoring of the programme and staff were identified as the major weaknesses. (4) Effective implementation of intervention related to physical and social access was found to be important. At the time of the study, two villages (around 1,000 population) were being catered by a single school. The imbalance between schools, teachers and enrolment was very clear. According to the records, 6.7% increase in enrolment was observed in the last six years. The GER from 59% in 1993 went up to 94% in 1997. With regard to focus groups, children from SC and agricultural labour families had lower enrolment figures (SC 54% and agricultural labourers 55%). (5) The access-related issues were taken as important issues in BEP. On basis of available data, it could be projected that 30% of the schools still required buildings and additional rooms. Out of 668 schools, 143 needed major and 174 needed minor repairs. BEP had constructed 77 schools, provided drinking water facilities in 144 schools, and constructed toilets in 96 schools. Besides, 21 CRC halls had been constructed. (6) The NGO approach to NFE seemed appropriate in the present context; however, it needed to be strengthened. (7) A very low level of retention rate was observed (40.7% for boys, 38.8% for girls) Maximum dropout was found between classes I & II. (8) The capacity at DIET remained low and under-staffed. (9) MLL results showed a low level of achievement. [Project duration: December 1997-March 1998] {BR/23}

Sinha, T.N. 1998. **Bihar Education Project in West Champaran: An evaluation.** *Bihar: ASSERT Institute of Management, Patna.*

The Objectives and Methodology of this study were same as of the 19th study i.e. **BEP: An evaluation (Muzzafarpur experience).**

Scope and geographical coverage: West Champaran District.

Major findings and implications: (1) Enrolment of children, specially of girls, SC/ST students had ubstantially increased over the year 1993. (2) Following launch of BEP, retention rate had increased, though marginally. (3) Achievement level showed an encouraging and positive trend. Gender-wise variation also showed that rate of improvement of girls was better than that of boys. General category children had performed relatively better in mathematics as compared to SC/ST children. (4) There was a marginal improvement in terms of school infrastructure such as school buildings, number of rooms, drinking water facility, common toilet, bell, chalk, duster, chair & table for the teacher, book bank etc. (5) Free textbooks and mid-day meals were being provided to students. Those children who were not getting free books were also seen to be equipped with books, copies and other materials. (6) NFE centres were functioning efficiently with the support of NGOs, co-operation of parents & VEC members. TLM was available in most of the NFE centres. Qualified instructors were found to have been recruited. (7) *Shiksha Premi Yojna* (SPY) had been the most effective programme, among all the programmes implemented by BEP. (8) The message and objectives of BEP had been received positively by SC, ST section of the society. They seemed to be now convinced on the importance of education for their children. (9) A palpable and positive change in the outlook towards girl education was clearly visible in the community, irrespective of their caste affiliations. The role of *Mahila Samakhya* was commendable in this regard. (10) Concern for the schools was noted to have developed among teachers, government officials and the community. (11) A strong and healthy work culture was visible among different functionaries of BEP at State, District and cluster levels. [Project duration: December 1997-March 1998] {BR/24}

NSDART. 1998. **An evaluation study on Bihar Education Project: Rohtas.** Bihar: XISS, Ranchi.

The Objectives and Methodology of this study were same as of the 19th study i.e. **BEP: An evaluation (Muzzafarpur experience).**

Scope and geographical coverage: Rohtas District.

Major findings and implications: (1) With regard to enrolment of students, it was observed: (a) The data collected from 48 schools indicated that enrollment had increased by 40% in 1997 over 1993. For girls the increase was at 50% and for boys, it was only 33.5%, (b) there was a very substantial dropout rate of students from class I to II and as such, there had been no improvement in the retention of students, and (c) although the strength of students enrolled in schools was found to be good, however, the daily attendance of children was found to be very poor. (2) As far as feedback received from teachers was concerned, the following was observed: (a) Teachers regularly took part in meetings such as parents-teacher meetings, (b) a majority of the teachers acknowledged that they received adequate help from the headmaster and colleagues, (c) with regard to help and guidance received from BEO, the response was mostly negative, (d) most of the teachers felt that very little or no help was received from the CRCs and VECs. However, in Chenari block, there was a positive response with regard to help received from CRCs, and (e) the most common problem mentioned by teachers was lack of classrooms and shortage of teachers. (3) With regard to MLL it was observed: (a) The test for class II was relatively easy and the result was more or less as expected i.e. 30% of the students scored 40% and above marks, and (b) the achievement in maths was poor with about 60% of the learners scoring less than 30% marks. (4) With regard to NFE centres and VECs it was observed: (a) NFE centres did conduct a number of activities to promote peoples' involvement in education of their children, and (b) instructors were of the opinion that they did not get much co-operation from officials and VEC. (5) As far as the main concerns of the people, which emerged from PRA exercise, were: (a) Since NGOs were engaged in running NFE centres for poor sections of the society, they had to face a lot of opposition from the higher castes. The upper castes were opposed to the education of those belonging to the lower castes, (b) in remote areas, people belonging to the higher castes had taken full control of the VEC, and (c) owing to acute poverty, it was very difficult for members of SC community to send their children to their schools. Alternative models of schooling were suggested. [Project duration: December 1997-March 1998] {BR/25}

HASSAN, ARIF. 1997. **Quality of primary education in Bihar: Report of the baseline assessment study**. *Bihar: Bihar Education Project, Patna.*

Objectives : (i) To measure the level of achievement of students in language and mathematics at the entry (class I) and near-terminal (class IV) levels, (ii) to find out the differences in achievement levels on the parameters of gender, location (rural-urban) and caste (SC/ST/OBC/Others), (ii) to study the status and functioning of elementary schools in terms of physical facilities, teachers, students' enrolment, attendance, availability of textbooks, teaching-learning activities etc, (iii) to understand teachers' and headmasters' background, training & education, activities performed, and their suggestions for school improvement, (iv) to determine the achievement level of school dropouts who have studied upto class III, and (v) to identify learner's background and school factors contributing to their achievement levels.

Scope and geographical coverage: Bhagalpur, Bhojpur, Darbhanga, Dumka, Gaya, Hazaribagh, Munger, Purnia, Vaishali and West Singhbhum districts.

Methodology: The sample of the study comprised 450 schools selected in equal number from the 10 districts. A minimum of three and a maximum of four blocks, including one urban area were selected in each district. About 1.5-3.2% of the total number of schools in each district were sampled for the study. The tools of data collection included: achievement tests for class IV students in language and mathematics, achievement test for class I students (all developed by NCERT), achievement test for dropouts, student present schedule and school records.

Major findings and implications: Access and retention: (1) Girls' enrolment rate (25%) was much less compared to that of boys. In certain districts it was even less (35-40%). (2) The number of girl students decreased progressively as they moved from class I to V. (3) Only 40% of the enrolled students attended classes on a normal working day. (4) About 65% of the students dropped out of schools before completing primary education. (5) There were more dropouts in the rural than urban areas. (6) Girls dropped out earlier, and in larger number than boys. (7) ST children had the maximum rate of dropout compared to all other caste categories. (8) The main reasons for dropping out of schools were baby-sitting siblings, helping in household chores and working to supplement family income. Achievement: (9) The overall achievement, at both levels, of class II and V students was found to be extremely poor. (10) Students' performance in mathematics was poorer than in language. (11) Grade I learners performed much better on the relevant competencies than grade V learners. (12) Learners from lower caste groups achieved lower scores, irrespective of subjects and grades. Teachers: (13) Women had a very poor representation (20%) as teachers in primary schools. (14) About 25% of the schools were short of one or two teachers. (15) Teachers had not been receiving recurrent training. (16) Quite a number of teachers had not received any kind of training. (17) Teachers from SC/ST category were less than 10% of the total number of teachers. (18) Teachers lacked knowledge and skills to handle multi-grade and multi-level teaching situations. (19) Teachers needed to be trained to make teaching attractive, joyful and absorbing. Physical Infra-structure: (20) Most of the schools were two-room buildings which were mostly not in a good condition. (21) Safe drinking water, toilet facilities, table and two chairs for teachers were available in only a limited number of schools. (22) Facilities for games and co-curricular activities were rarely available in schools. (23) Teaching aids such as kits, flash cards, guides etc were neither available, nor teachers were much familiar with their use, in most of the cases. [Project duration: December 1997-March 1998] {BR/26}

SINGH, S.K.; SINGH, C.B.P. & KUMAR, SUNIL. 1999. Achievement of MLL in DPEP districts of Bihar: An evaluation. *Bihar: Bihar Education Project, Patna.*

Objectives: (i) To what extent the inputs provided by BEP had affected the quality of primary education, (ii) to assess the status of progress of intervention of MLL in Bihar, (iii) to find out those areas which required maximum intervention, (iv) to identify gender differences in learning achievement, (v) to identify caste & category-wise in learning achievements.

Scope and geographical coverage: Bhagalpur, Dumka, Hazaribagh, West & East Singhbhum, Ranchi, Bhojpur, Muzaffarpur, Sitamarhi, West Champaran, Chatra, Rohtas, Darbhanga, Gaya, Munger, Purnia and Vaishali (all DPEP) districts.

Methodology: From each district, two blocks and 15 primary/middle schools were randomly selected, and from each 40, 30, 20 and 10 students from the classes II, III, IV and V respectively were selected. In all 3,972 students of class I, 3,466 students from class II, 2,724 students from class III and 1,909 students from class IV were selected from the 17 districts.

Major findings and implications: Achievement levels of class I students in language and mathematics: (1) The overall achievement levels in language and mathematics in all the 17 districts was approximately same at 44.9%. (2) About 40% had not yet achieved MLL in language. A mere 10% of the achievers secured 80% and above. (3) In verbal and written tests in language about 35% students were placed in the no-achievement MLL category. (4) Competency-wise, about 26% per cent students had mastery level in speaking. Nearly 18% of the students had achieved MLL and about 25% were approaching MLL. (5) In mathematics, about 38% of the students had not achieved MLL and about 9% of the students achieved more than 80% marks. On an average, 44% of the students in written test and 14% of them in verbal test scored less than 40% marks. The overall achievement in verbal test was better since nearly 34% and 21% of the students were approaching either MLL or mastery-levels. Achievement levels of class II students in language and mathematics: (6) The overall achievement levels in language and mathematics was recorded to be at 44.6 and 43.5 respectively. (7) In mathematics, 43% scored below 39% marks. Only 16% had achieved MLL. In understanding geometrical shapes and spatial relationships, about 90% of the students failed to score any marks. Similarly, in written test 45% of the students had not reached MLL. (8) In language, about 48% of the students secured less than 40% marks. In written tests, about 50% of the students had not achieved MLL. Nearly 55% of the students obtained less than 40% marks. Achievement levels of class III students in language and mathematics: (9) The overall achievement level in language and mathematics in all the 17 districts was about 41% and 39% respectively. (10) In language, nine districts had less than 39% achievement levels while in 10 districts students scored below 40% marks. (11) In mathematics an overall trend of not achieving MLL was recorded. This was about 50%. Just 6% of the students had mastery level achievement in mathematics. Dimension-wise, about 58% of the students had not achieved MLL. In Bhojpur and Hazaribagh, more than 60% of the students came under no achievement category. However, on the oral dimension, only 18% of the students had achieved mastery levels. Achievement of class IV students in language and mathematics: (12) The overall achievement levels in language and mathematics was at 43.3 and 35.1 respectively. (13) In mathematics, in all but five districts, had about 37% achievement levels in language. The students in eight districts had not achieved MLL; of them those in six districts secured less than 30% marks. (14) In mathematics, about 54% had not achieved MLL. However, about 19% of the students had achieved MLL. Just 14% of the total students came under approaching-MLL category. (15) In language, about 46% of the students had not achieved MLL. More than 60% of the students in six districts namely Bhagalpur, Dumka, Hazaribagh, W. Singhbhum, E. Singhbhum and Ranchi obtained less than 40% marks. However, about 32% children had achieved MLL. (16) In written test, about 60% had not achieved MLL. Only 5% had mastery level in writing. Contrary to it, 52% were approaching MLL. In speaking competency, about 27% of the students achieved 40-59% marks. About 38% students were still in the under-difficult category. However, it was not true in the case of writing competency. More than 50% percent of students in all districts required remedial teaching; as only 6% could obtain more than 79% marks. [Project duration: December 1997-March 1998] {BR/27}

SINGH, SUMAN K. & KUMAR, SUNIL. 1999. **Private and government primary schools: A comparison in rural settings.** *Bihar: Bihar Education Project, Patna.*

Objectives: (1) To understand the emerging phenomenon of private primary schools and compare them with their government counterparts in rural areas. For comparison, the issues investigated were: (a) factors leading to their emergence, (b) the various type of such schools and their standard, (iii) the nature of their clientele, and (iv) implications for the co-existing formal stream of primary education.

Scope and geographical coverage: Muzzafarpur and Darbhanga districts.

Methodology: Two blocks from each district were selected. The two districts, though adjacently located, varied in terms of interventions made for the improvement of primary education. It was decided that the study be conducted in only such private primary schools which existed side by side of a government school, for the purpose of comparison. Accordingly, pairs of private and government primary schools were purposively drawn. In all, 20 private and equal number of (co-existing) government schools from each of the two districts were selected. Information related to infrastructure of schools, quality of teachers, perception of parents about schools, background of students and achievement of learners was collected. The tools developed and used for data collection were: school information bank, teacher's interview schedule, student's background schedule, achievement test in language and mathematics for students of class IV developed by NCERT. Observational data were also gathered. The secondary sources of data collection included Educational Survey and BEP data. Mean and standard deviation were computed for all the variables. The mean percent and t-ratio were calculated for understanding the achievement score of learners.

Major findings and implications: (1) Most of the private schools were of recent origin and had medium-very poor quality physical infrastructure; meanwhile, government schools, though older had almost identical infrastructural facilities. (2) Private schools had a significantly better pre-primary teaching facilities which was nearly absent in government schools. Also, they had more frequent evaluation of learners and far more number of working days as compared to government schools. (3) Government schools had fewer but well-trained teachers. However, teachers in private schools were much younger and ignorant of modern concepts of teaching-learning. There was some evidence to suggest that private school teachers worked harder and refrained from going on leave which was not so in the case of government school teachers. (4) A comparison of the profile of parents showed that preference for private schools was linked to their educational status and aspirations. (5) Both types of schools attracted students from all caste groups and appeared almost similar in terms of student composition. (6) Learners in private schools showed better performance at all levels in the achievement test than their counterparts in government schools. Girls from private schools too proved to be better than their counterparts in government schools. The same was noticed for caste groups comparisons as well. (7) Both typed of schools located in the old BEP districts turned out to be superior than the ones in new BEP districts on the parameters of their performance in achievement tests. [Project duration: January 1998-January 1999] {BR/28}

GUJARAT

AUNDHIYA, RAJASHRI & RATHOD, NAVNEET. 1999. **Construction and validation of a competency-based test of mathematics for class IV to assess the minimum levels of learning.** *Gujarat: GCERT.*

Objectives: (i) To construct a competency-based achievement test in mathematics for class IV, (ii) to validate the test constructed, (iii) to study the competency-wise achievement of students, and (iv) to examine the students' minimum levels of learning.

Scope and geographical coverage: Bhavnagar city.

Methodology: Two Municipal Board Schools (MBS) and two private schools (out of 96 and 84 respectively) were randomly selected for pilot testing. A sample of 120 students (30 students from each school) was selected for this purpose. For final testing, 10 schools of MSB were randomly selected, and a sample of 300 students was drawn (30 students from each school). For constructing the achievement test, 20 representative competencies were selected from 57 competencies pertaining to five learning areas. Seventy items were constructed keeping in view the MLL criterion of 50 × 50 among which 42 items were of one mark each, 15 items of two marks each, 9 items carried 3 marks each and 4 items carried 4 marks each. The test was of 115 marks. Only the items with facility value between 0.15 and 0.85 and discrimination index 0.20 or above, were selected. The validity of test items was established as suggested by Totsuka (1986) using graph principle and alogrithmic method. According to Shee and Pinge (1988), persons × item-matrix was prepared by selecting 10 students and 10 items randomly. From this information, persons × items in the descending order of difficulty value matrix and item dominance matrix of behavioral area was made and validity index calculated. Reliability of the test was found by Cronbach-coefficient alpha (α).

Major findings: (1) Unidimensional index 'c' was 0.62 which indicates satisfactory construct validity. (2) Reliability coefficient (Cronbach (α) of the entire test was 0.90 which indicates a high reliability of the test. (3) Competency number 1.4.3 was achieved by a high percentage (91.67%) of students and competency number 2.4.10 was achieved by lower percentage (37.33%) of students. (4) Remedial teaching was felt necessary regarding the competency number 2.4.10. (5) The competency achievement level was recorded at 50 × 50.

Implications and action points: The test may be useful to find out the achievement level of class IV students in mathematics. {GJ/01}

DABHI, C.B. & THAKAR, MANHAR (Guide). 1999. **A study related to conceptual understanding of trainees of Adhyapan mandirs (PTC) of Bhavnagar District regarding acid, base and salt in class VII science.** *Gujarat: GCERT.*

Objectives: (i) To know the conceptual understanding of trainees (class VII students) in science regarding acid, base and salt, and (ii) to know the gender difference with regard to conceptual understanding of the subject.

Scope and geographical coverage: Bhavnagar District.

Methodology: All (227) trainees of the three Adhyapan Mandirs in the district comprised the sample of the study. A conceptual test consisting of questions on acid, base and salt was constructed. It contained 50 multiple choice type items. The test that was finalised after pilot testing and consulting experts, had 40 items. The data was analysed by converting all correct answers into percentages and classifying them into five categories. Then the concept-wise mean percentages were calculated. Gender-wise number mean, standard deviation and CR were calculated.

Major findings: (1) A descending order was found in conceptual understanding in the context of properties of base & salt and uses of acid & base. (2) The item-wise analysis showed that in relation to conceptual understanding, 8 items were crystal clear, 13 items were mostly clear, 13 items were generally clear, 5 items were mostly unclear and one item was totally unclear.

Implications and action points: 1. The test can be utilised to find out the deficiency regarding conceptual understanding of acid, base and salt. 2. The test can be used to know students' achievement level in the area of study. {GJ/02}

JOSHI, NIRALI A. & BHARDA, A. R. (Guide). 1999. **Construction and standardisation of an achievement test in science for class VI students.** *Gujarat: GCERT.*

Objectives: (i) To construct and standardise an achievement test of science for class VI, and (ii) to know the student's achievement in science.

Scope and geographical coverage: Jamnagar District panchayat.

Methodology: The initial sample of the study comprised of 400 students, out of which half were pilot-tested (including 97 girls). The final test was given to 200 students (including 101 girls). The *talukas* were randomly selected, schools through purposive sampling and students by lottery method. The one-hour test comprised of 60 multiple choice type items containing one mark each pertaining to 39 competencies. Facility value, discrimination index, reliability co-efficient, validity index, norms, skewness and kurtosis were determined.

Major findings: (1) Facility value of test items ranged between 0.41 and 0.85. (2) Reliability co-efficient of the test was 0.97. (3) Cliffs consistency index 'c' for validity of the test was recorded at 0.3594. (4) The frequency distribution was leptokurtic and negatively skewed. (5) Percentile rank (PR) of the test was 60.78≅61).

Implications and action points: 1. Hardspots of class VI science can be identified with the help of this test. 2. Students' achievement level in science can be determined. 3. This test may be useful to establish norms at district and state levels for class VI science. {GJ/03}

JOSHI, T.S. & MULWANI, RAJESH (Guide). 1999. **A comparative study of achievement of class III students taught by dialect speaking and non-dialect speaking teachers in Mizar taluka of Surat District.** *Gujarat: GCERT.*

Objectives: (i) To examine and compare the subject-wise achievement of class III students taught by dialect speaking and non-dialect speaking teachers, (ii) to compare the average achievement of class III students taught by dialect speaking with those taught by non-dialect speaking teachers.

Scope and geographical coverage: Nizar taluka of Surat District.

Methodology: The sample of the study comprised of 198 students including 101 students being taught by dialect speaking teachers and the remainder being taught by non-dialect speaking teachers. The sample was selected from the 94 schools administered by the District Panchayat in the taluka by using stratified random sampling method. Competency-based question papers in Gujarati, Mathematics & EVS of Class III prepared by GCERT, Gandhinagar were used as tools of the study. The mean and standard deviation of achievement scores were calculated subject-wise. CR was calculated to test null hypothesis in each case.

Major findings: (1) Achievement level of students taught by dialect speaking teachers in the three subjects were higher than their counterparts taught by non-dialect speaking teachers.

Implications and action points: 1. In the initial stage of learning, it is desirable that the teacher should use local dialect. 2. The teacher should acquaint own self with local dialect. 3. Ideally, the teacher should be provided with the training in the use of local dialect and supplementary material in that dialect. {GJ/04}

KURKUR, K.K. & SHAH PRAVIN (Guide). 1999. **Diagnosis and remediation of use of anuswar (nasal sound) by second year trainees of Adhyapan Mandir.** *Gujarat: GCERT.*

Objectives: (i) To prepare two tests to find out errors in the area of anuswar (nasal sound) in Gujarati language by trainees of Adhyapan Mandir, and (ii) to determine the effectiveness of remedial teaching.

Scope and geographical coverage: DIET, Amreli.

Methodology: The sample of the study comprised of all the 39 trainees of the second year of PTC in the DIET. Two self-made tests were prepared consisting seven rules of anuswar. Data was analysed by converting into percentages the scores obtained by trainees in the pre- and post-test.

Major findings: (1) Trainees were found lacking in understanding of rules of *anuswar* at the time of pre-test. (2) There was a gain in the scores by 48% after the remedial teaching.

Implications and action points: 1. By providing information and practice of the rules of *anuswar*, students' knowledge and proficiency could be raised. {GJ/05}

MEHTA, AKSHAYSAGAR, J. & RATHOD, NAVNEET (Guide). 1999. **Construction and validation of criterion - referenced test of class IV mathematics using computerised banks of polygamous items.** *Gujarat: GCERT.*

Objectives: (i) To construct a criterion - referenced testing (CRT) relating to five competency area in mathematics of class IV, and (ii) to validate multi-serial items for criterion referenced measurement.

Scope and geographical coverage: Bhavnagar city.

Methodology: One boys' school and one girls' school from the Gujarati medium schools run by Bhavnagar Shikshan Samiti and two mixed private schools were randomly selected. From each of them, forty students of class IV were randomly selected. The sample represented boys and girls in proportion. The test included 53 out of 60 competencies relating to five learning areas of mathematics meant for class IV. Five computerised item clusters were constructed for five learning areas. Experts' opinion was sought for items selection. A practical review of items was done through pretest and

Objectives: (i) To prepare a test determining representative competencies (ii) To know the difference in academic achievement, if any, between the children availing and not availing of Balamitravarga (a government programme for providing class I students with joyful, activity-based learning experiences).

Scope and geographical coverage: Patan.

Methodology: Eighty students having Balmitravarga and not having the same were randomly selected from the 14 Municipal Schools in Patan. Two such groups of schools were selected. A 30-marks test comprising representative competencies was prepared. The allotment of marks was 10 each for the three subjects. The items were of objective type and the test was orally and individually administered. Mean, standard deviation and CR were calculated. Graphical representation was made as per the requirements.

Major findings: (1) Children availing of Balmitravarga facility recorded better achievement than those not availing of such a facility.

Implications and action points: 1. Provision of Balmitravarga at initial stage of primary schooling could promote UEE and qualitative improvement in achievement of children. {GJ/10}

PATHAK, SATISH & KOTHARI, RAMESH (Guide). 1999. **A study of academic achievement of class IV students of Vadodara District under MLL approach.** *Gujarat: GCERT.*

Objectives: (i) To study the students' achievement in Gujarati, Mathematics and EVS, (ii) to study students' academic achievement in the context of competencies, (iii) to undertake comparative study of students' achievement in all the subjects taluka-wise, (iv) to study the students' subject-wise qualitative level based on 'mastery scale'.

Scope and geographical coverage: Savli, Vadodara, Vaghodia and Dabhoi talukas of Vadodara District.

Methodology: The sample of the study consisted of 280 (out of a total of 15,031) class IV students from 12 selected district panchayat schools in the four talukas, selected by using multistage random sampling. Self-made test in the three subjects was pilot-tested before final administration. The number of students who performed well in competencies were converted into percentages. Frequency distribution of marks obtained was prepared and analysed by applying Dr. Ravindra Dave Mastery Scale.

Major findings: (1) Competency-based highest achievement in Gujarati was noticed in students of Dabhoi Taluka among all the selected competencies in relation to 50 × 50 whereas students of Vaghodia and Savli were found weak in the competency numbers 5.4.2 and 5.4.1. (2) The same result was observed in Dabhoi in Mathematics. while the students of Vadodara, Vaghodia and Savli were found to be weak in competency number 3.4.1 (3) In EVS, Dabhoi was ahead of other talukas. Students of Vaghodia, Vadodara and Savli were found weak in competency number 10.4.10. Students of Vaghodia and Savli were found weak in competency number 8.4.5 and students of Vaghodia were found weak in comptency number 6.4.1 in relation to 50 × 50 norm. (4) It was found that students' academic achievement level of Dabhoi Taluka was the highest. (5) According to the 'Mastery Scale', the result in Mathematics was found to be higher and that of Gujarati to be lower.

Implications and action points: 1. Through such studies, students' achievement level can be determined and then, it can be raised. 2. Hard spots of each competency can be determined and remedial steps be taken. {GJ/11}

RAMANUJ, C.M. & SHAH, PRAVIN (Guide). 1999. **Diagnosis of students' deficiencies in learning area: 4 'fraction' of class IV mathematics.** *Gujarat: GCERT.*

Objectives: (i) To construct a diagnostic test related to learning area: 4 fraction, (ii) to diagnose deficiencies of the students in the area concerned, (iii) to identify and interpret hardspots, by competency.

Scope and geographical coverage: Amraeli.

Methodology: The sample of the study comprised of all the 1,704 students from the 17 schools run by Nagar Prathmik Shikshan Samiti and government-recognised private schools. A rating scale was constructed containing items pertaining to 60 competencies in the five (total) learning areas. Hardspots relating to fraction were identified on the basis of experience of 20 teachers'. After analysing the hardspots, the test was constructed relating to six competencies. Expected behavioural changes for each competency were identified. Eighty-five items were constructed to determine the behavioural changes into six parts, namely A, B, C, D, E and A:1. The analysis was done in percentages.

Major findings: (1) About 70% of the students were found to be weak in competency number 4.4.1 as viewed in the context of MLL norm (70×80). (2) By and large, students were found weak (50×50) in competency number 4.4.3. (3) Nearly 81% of the students attained 50% achievement level in competency number 4.4.4. (4) About 68% of the students were found to be weak in competency number 4.4.5. (5) Most (90%) of the students were found to be weak in competency number 4.4.6. (6) Almost all (98%) the students were found to be weak in competency number 4.4.1.

Implications and action points: This test would be useful in diagnosing deficiency in learning of fractions. {GJ/12}

SHAH, S. B. & VOHRA, S.M. (Guide). 1999. **The effect of diagnostic and remedial programme regarding *jodni* (spelling) in Gujarati for girl students of class VI^{th}.** *Gujarat: GCERT.*

Objectives: (i) To prepare a self-made test for diagnosing deficiencies in Gujarati *jodni* (spelling), and (ii) to know the effectiveness of remedial programme for improvement of the same.

Scope and geographical coverage: DIET, Kathlal.

Methodology: The sample consisted of all class VI students of girls' school in Kathlal. Among the material used were essay notes of Gujarati, answer books of terminal examination and dictation of 60 words randomly selected from the class VI^{th} Gujarati textbook. One-group pretest-post-test experimental design was applied.

Major findings: (1) The repeated drilling of important words improved the students' Gujarati *jodni*. (2) Students became aware of the rules of *jodni*. (3) Remedial work had enhanced the performance level of students in jodni.

Implications and action points: 1. Using the diagnostic and remedial programme, Gujarati spellings could be improved. {GJ/13}

UPADHYAY, H.M. & RATHOD, NAVNEET (Guide). 1999. **Construction and validation of an achievement test in Environmental Studies for class IV students.** *Gujarat: GCERT.*

Objectives: (i) To construct competency-based achievement tests in EVS for class VI, (ii) to determine the reliability and validity of the test, (iii) to study student's achievement in the context of competencies related to EVS, and (iv) to examine the students' minimum levels of learning.

Scope and geographical coverage: Bhavnagar District.

Methodology: The sample of the study comprised of eight (out of 60) primary schools run by the Ghogha Taluka Shikshan Samiti in the District. Thirty students from each selected school shortlisted by selecting odd numbers from the class register were administered the test. Out of 52 total competencies in EVS, 8 were left out since they were activity-based and hence written examination was out of question. Of the remaining 44 competencies, 15 were finally selected on the basis of expert's opinion. The test items were constructed keeping in view competency statements. Keeping in mind the MLL criterion (50×50), 71 items were constructed. The 100-marks test contained 30 items & 29 items with two marks each respectively and 3 items with four marks each. The items were selected on the bases of facility value and discrimination index. The construct validity was established by using Totsuka's graph principle method. As suggested by Norsin, Shee & Pinge (1988), 10 items and 10 students were randomly selected and person × index item matrix was made. To establish validity cliffs consistency index 'c' was determined by using Rathod Computer Programme (RCP) UD-BAS. Reliability co-efficient Cronbach Alpha was determined by using RCP CA-BAS. In this process, the variance of each item was found.

Major findings: (1) Unidimensional cliffs consistency index 'c' for the whole test was 0.52. (2) Reliability co-efficient for the whole test was 0.82. (3) The highest number of achievers (94.58%) were found for the competency number of 10.4.4 and the lowest number of achievers (18.33%) were found for the competency 7.4.1. (4) It was found that remedial teaching for five competencies was needed in the context of competency achievement norm 50 × 50. (5) Competency achievement norm was found to be 50 × 54.

Implications and action points: 1. This test would be useful to find out the achievement levels in EVS for class IV. 2. This test can be useful in assessing the deficiencies in EVS achievement in the beginning of class V and for further individual guidance. {GJ/14}

HARYANA

NAYAR, USHA; BATRA, USHA & BHARDWAJ, AJAY. 1994. **DPEP, gender studies, District Hisar at a glance**. *New Delhi & Haryana: Department of Women Studies, NCERT & DPEP Cell, SCERT, Gurgaon.*

Objectives: (i) To map the gender disparities in terms of access, enrollment, retention and achievement, (ii) to identify causes for non-enrollment and dropout of girls and propose remedial and effective district, local-specific strategies, (iii) to assess the situation of women in the district with regard to social and demographic indicators such as women's equality and empowerment, (iv) to collect information on gender bias in textbooks, teacher training, teacher's attitude, curriculum transaction and attitude of administrators, (v) to identify supportive community structures such as women's groups, VECs, *panchayats*, PTAs, teacher organisation and youth clubs for adopting effective strategies of UPE among girls, (vi) to identify ways to facilitate convergence of the services of different departments (*viz* ECCE, health and supportive services) for UPE among girls, (vii) to assess the participation of women in teaching, administration and other decision-making bodies, and (viii) to develop state and district-level monitoring and evaluation framework.

Scope and geographical coverage: Hisar District.

Methodology: The sample of the study comprised of 15 villages, 4 urban slums, 50 households and 971 persons including women selected on purposive stratified random sampling basis. The study was carried out in a participatory research mode. The concerned communities, parents, officials and researchers met together in a face-to-face interaction and discussed the major issues. Structured individual interviews through schedules and group discussions were carried out in addition to secondary data obtained from the state, districts, blocks and sampled villages. Field observations was used as well. Each interview was like a mini-discussion group with male head of the household as the chief respondent. Household women too participated. Responses registered were deemed as parental responses.

Major findings: (1) Incentives given to students were not adequate and not delivered on time. (2) Discriminatory attitude towards girls was noticed in distribution of food, health, medical-care and provision of time for studying. (3) Early marriage was the main hurdle in girl's education. Cultural practices derogatory to the status of women such as dowry, *parda* system, unequal rights to girls in parental property were observed. (4) There was no co-ordination between *anganwadis* and schools. (5) Primary occupation of the villagers was agriculture. This increased work pressure on women and girls. Parents therefore, did not send girls to schools. (6) After primary schooling, parents did not send their daughters to high schools because there were exclusive secondary schools for them. [Project duration: 1994] {HR/01}

NAYAR, USHA; BATRA, USHA & BHARDWAJ AJAY. 1994. **DPEP, gender studies, District Jind at a glance.** *New Delhi & Haryana: Department of Women Studies, NCERT & DPEP Cell, SCERT, Gurgaon.*

Objectives: (i) To map gender disparities in terms of access, enrollment, retention and achievement, (ii) to identify causes for non-enrollment and dropout of girls and to suggest effective and remedial district and local-specific strategies, (iii) to assess the situation of women in each district with regard to some social and demographic indicators such as women's equality & empowerment, (iv) to collect information on gender bias in textbooks, teacher training, teacher's attitude, curriculum transaction and attitude of administrators, (v) to identify supportive community structures such as women's groups, VECs, *panchayats*, PTAs, teacher organisations, youth clubs for developing effective strategies for UPE among girls, (vi) to identify ways for the facilitation of convergence of services of different departments (ECCE, health and supportive services) for UPE among girls, (vii) to study the availability of educational books, stationery, uniforms and other incentives such as noon meals, attendance prizes etc, and (viii) to assess the participation of women in teaching, administration and other decision-making bodies.

Scope and geographical coverage: Jind District.

Methodology: The sample for the study comprised 8 villages, 20 urban slums, 30 households and 485 respondents residing in them including women selected on purposive stratified random sampling basis. The was carried out in participatory research mode. The concerned communities, parents, officials and researchers met together in face-to-face interaction and discussed the major issues. Structured individual interviews through schedules and group discussions were carried out in addition to secondary data obtained from states, districts, blocks and sampled villages. Field observation was employed as well. Each interview turned into a mini-discussion group with the male household head as the chief respondent; however, women in the household participated as well. The responses registered were seen as parental responses.

Major findings: (1) Most of the parents were illiterate. (2) There were more illiterate women than men. (3) In some villages, there were more female teachers than men teachers; yet the female literacy in these villages was quite low. (4) There was discrimination between boys and girls in every sphere. (5) Male child as compared to the girl was invariably given preference. (6) Women were not given proper respect and status in the family. (7) Women had little participation in significant decision-making professions and respectable occupations. (8) Household work was the sole responsibility of women and girls. (9) There was shortage of drinking water facility in the households. (10) Women and girls shouldered the whole responsibility of fetching water, fodder, firewood, tending to cattle etc. (11) Lack of toilet and lavatory facilities in households. (12) Parents being illiterate, did not attach much importance to the education of the girl child. (13) Domestic chores such as care of siblings, helping in parental occupation or in fields were responsible for the non-enrollment or dropout of girls. (14) Child labour, child marriage, dowry and *parda* system and similar forms of exploitation of women were prevalent in some villages. (15) *Mahila mandals* were not functioning satisfactorily. (16) There was no NFE centre for girls. (17) There were no adult education centres for women. (18) Some schools were without boundary walls or separate toilets or both. This resulted in the non-enrollment and dropout of girls since parents considered such schools as unsafe for girls. (19) Incentives were given only to girls belonging to SC or other weaker sections of the society. Non-provision of incentives to girls from General/other categories kept them away from schools. (20) There was no *anganwadis* or crèche facility in the sampled villages. (21) There was an acute shortage of trained midwives in most of the villages. (22) In most of the villages there was only one lady *panch* who being illiterate had no say in the decision-making process. [Project duration: 1994] {HR/02}

NAYAR, USHA; BATRA, USHA & BHARDWAJ, AJAY. 1994. **DPEP, gender studies, District Sirsa at a glance.** *New Delhi & Haryana: Department of Women Studies, NCERT & DPEP Cell, SCERT, Gurgaon.*

Objectives: (i) To map out the gender disparities in terms of access, enrollment, retention and achievement of girls, (ii) to identify the causes for non-enrollment and dropout of girls and to suggest district, local-specific remedial strategies, (iii) to assess the situation of women in the district with regard to social and demographic indicators such as women's equality and empowerment, (iv) to collect information on gender bias in textbooks, teacher training, teacher attitude, curriculum transaction and attitude of administrators, (v) to identify supportive community structures such as women's groups, VECs, *panchayats*, PTAs, teacher organisations and youth clubs for developing effective strategies for UPE among girls, (vi) to identify ways to facilitate the convergence of services of different departments for UPE among girls, (vii) to study the availability of educational books, stationery, uniforms and other incentives such as noon meals, attendance prizes etc, (viii) to assess the participation of women in teaching, administration and other decision-making bodies, and (ix) to develop state, district-level monitoring and evaluation framework.

Scope and geographical coverage: Sirsa District.

Methodology: The sample of the study comprised all the 519 primary schools in the district including those run by the government and other agencies.

Major findings: (1) Only 21 *dhanis* were un-served in the district. (2) 48% of those enrolled were girls, which was about 47% of the population. (3) Of the total enrolled SC children at the primary stage, about 44% were girls. (4) Dropout rate of girls was 41.37% compared to 34.77% of boys. (5) The dropout rate of SC students was about 53%; for SC girls this was 45.24% . (6) The problem of access was largely of *dhanis* which were without schools. (7) The problem of access to schools in large villages was due to their location in one corner of the village and due to over-crowding as well. (8) Factors contributing to girls enrollment and retention were parental education, better economic status of a household in which parents could meet extra tuition costs etc and where parental support was given for academic work. (9) Domestic work, engagement in remunerative work, parental illiteracy, inability to pay extra tuition costs, lack of funds, motivation and care of siblings led to dropout among girls. (10) Never-enrolled boys belonged to families with less annual income, illiterate parents and having large families. 68% belonged to SC involved in work. (11) Sex ratio was highly adverse. (12) The practice of female abortion was widely prevalent. (13) The mean age for the marriage of girls was 17. (14) Practices derogatory to the status of women was widely prevalent. (15) Parents, teachers, community leaders, administrators expressed highly egalitarian views on girls' education & women empowerment. (16) The study compiled information on gender bias in textbooks, teacher training and teacher's attitude. (17) Review of Hindi and maths textbooks pertaining to deletion of gender bias material had been completed. (18) There was no co-ordination between the department of health and the school system. (19) There were only 737 *anganwadis* for children upto 6 years of age. (20) There was residence facility and no security for female teachers serving in the remote areas. (21) Women had no role in the decision making. (22) No state, district-level monitoring and evaluation framework had so far been developed to gauge the progress of girls' education & women's empowerment. (23) The I.M.R. for females was 102 compared to 80 for males. (24) There were 47 *mahila mandals* covering 307 villages in the district. (25) *Panchayats* were taking keen interest in the construction of school buildings. (26) VECs were virtually non-existent. (27) PTAs and MTAs were non-functional (28) Teacher organisations and youth clubs had no programmes supporting UPE amongst girls. (29) There was no co-ordination between *anganwadi* and primary schools. (30) Only two *balwadis* were functional in the district. (31) No NFE centres for girls existed; incentives like free textbooks, stationery, uniform, attendance prizes were given to SC girls and this had a visible impact on their enrolment. (32) Children of nomadic tribes received an allowance of Rs 1 per school-day. (33) Denotified tribes' children received attendance scholarship of Rs 10 per month for 70% attendance. (34) In the district, 60% of the total primary teachers were women. (35) Parents were reluctant to send their daughters to single male-teacher schools. (36) There was DPEO and six BEOs; however, only one administrative post was manned by a woman. [Project duration: 1994] {HR/03}

TILAK, G.B.; CHUTANI, M.C. & KAWTRA, B.S. 1994. **State finances for education in Haryana.** *New Delhi & Haryana: NIEPA & DPEP Cell, Gurgaon.*

Objectives: (I) To present a brief profile of the pattern of financing of education, in particular, elementary education - both primary and upper primary-in Haryana during the past 10 years, and (ii) to present a brief estimate of financial resources required for education, in particular for UEE by the year 2000, including the gap between requirement and likely availability of resources.

Scope and geographical coverage: Haryana State.

Methodology: The study relied on the following secondary sources: *Economic Survey I, 1991-92; Reserve Bank of India Bulletin, September 1992;* Haryana Budget 1993-94; *Directorate of Secondary Education, Annual Report; Annual plan, 1992-93,* Planning Commission Document; Directorate of Primary Education, Haryana, *Annual Report*; and Directorates of primary and secondary education, Haryana, Budget for 1990-91, 1991-92 and 1992-93.

Major findings and implications: (1) On the basis of the expenditure per student (Rs 645) in 1991-92, the financial requirements for achieving UEE by the year 2000 were estimated. The projected expenditure for elementary education in the year 2000 would be Rs 2,599.6 million. This would require an annual compound growth rate of 6.4% at 1991-92 prices. (2) The additional annual enrollment required to achieve UEE by 2000 AD would be about 0.2 million on an average. The financial implication of absorbing this additional number annually would be Rs 128.20 million at 1991-92 prices *i.e.* 8.1 % above the existing level in real terms. (3) The capital cost of UEE was a matter of concern. Projections were based on the unit cost which obviously did not take into account the capital cost. (4) The number of additional classrooms required would be 39,750 (40 students per classroom) and its cost would be Rs 4,372.5 million). [Project duration: October 1993-January 1994] {HR/04}

BATRA, USHA & BHARDWAJ, AJAY. 1994. A **study on gender bias material existing in primary school textbooks in Haryana.** *Haryana: DPEP Cell, SCERT, Gurgaon.*

Objectives: (i) To identify gender bias based on the factual material existing in primary school textbooks in Haryana, (ii) to identify illustrations and pictures depicting gender perversion in primary textbooks, (iii) to identify language depicting gender bias, (iv) to identify gender bias textual material, (v) to identify gender bias material in recapitulatory exercises of different lessons in primary school textbooks, and (vi) to ensure deletion of all the aforesaid identified gender bias material from the primary school textbooks in Haryana.

Scope and geographical coverage: Haryana State.

Methodology: All the 19 primary school textbooks, six in Hindi-I, II, III IV & V, five in arithmetic - one for each class, four each in EVS part A & B (EVS teacher's guide for classes I & II, EVS - III, IV · & V) prescribed classes I & II (EVS - III, IV & V), prescribed by the Department of Education for primary schools in Haryana were thoroughly scanned from page to page. Earlier, a proforma for this was developed.

Major findings and implications: (1) In *Hindi praveshika* for class I, two pictorial changes were suggested. (2) In Hindi-I, three changes on textual and two on pictorial were made. (3) In Hindi-II, two pictorial changes were suggested. (4) In Hindi-III, three pictorial changes were suggested. (5) In Hindi-IV, one textual change was suggested. (6) In Hindi-V, one change in picture was suggested. (7) In arithmetic-I, three textual and one pictorial changes were suggested. (8) In arithmetic-II, five textbook changes were suggested. (9) In arithmetic-III, seven textual changes were suggested. (10) In Arithmetic-IV, seven textbook changes were recommended. (11) In arithmetic-V, 13 textual changes were suggested. (12) In EVS teachers guide part A, three textual changes were suggested. (13) In EVS III, part A (SS for class III), four textual and five pictorial suggestions were made. (14) In EVS IV, part A (SS for class V), four pictorial and three textual suggestions were made. (15) In EVS III, part B (science for class III), seven pictorial suggestions were offered. (16) In EVS IV, part II (science for class IV), three pictorial and three textual suggestions were made. (17) In EVS V, part II (science for class V), four pictorial suggestions were made. [Project duration: June-December, 1994] {HR/05}

JANGIRA, N.K.; AHUJA, ANUPA & CHUTANI M.C. 1994. **Learning achievement of children at primary level, a baseline assessment study in the four districts of Haryana (DPEP-I districts).** *New Delhi & Haryana: Department of Teacher Education, NCERT & DPEP Cell, SCERT, Gurgaon.*

Objectives: (i) To assess the learning achievement of students approaching the end of the primary school cycle, (ii) to assess class V students in language and mathematics based on class IV curriculum (language comprised word-meaning and reading comprehension without including the mechanics of reading), (iii) to assess a number of variables relating to students, school and home in order to explain the differences in learning achievement, (iv) to assess class II students for simple literacy and numeracy skills, (v) to study the level of learning in the beginning of primary school and home with a view to explain differences in learning achievements, (vi) to assess dropouts for simple literacy and numeracy skills & to study the level of retention of these skills, and (vii) to identify factors contributing to school effectiveness.

Scope and geographical coverage: Sirsa, Hisar, Jind and Kaithal districts.

Methodology: Multi-stage stratified sampling technique was used. Four rural blocks and three urban areas in each districts were taken. 10% of the schools in each district spread over the selected blocks in the rural and urban areas were taken. A maximum of 30 students in class V and 20 in class II in each sampled school were selected randomly. A maximum of 5 dropouts from each such school who had been absent for a minimum of three months and maximum of one year were randomly selected in order of preference from classes V, IV, III, II respectively. A maximum of 5 teachers from each sampled school including the head of school and teachers who taught class I and IV in the previous year were also included in the sample. Replacement lists of school teachers and dropouts were also prepared and used wherever necessary. The tools of data collection included: student present schedule, student dropout schedule, teacher's schedule, school record schedule, field notes and learning achievement tests for classes V and II in language and mathematics. Training manual and field handbook were prepared for the training of principal investigators, master-trainers and field investigators of the district. They were imparted 10 days training in the collection and scrutiny of data.

Major findings: (1) The sample of class V students comprised of 2,516 students out of which about 49% were girls. However, the proportion of girls was more than boys in class II sample. Representation of students from SC and OBC groups was very small. (2) There were more boys in the older age group (12 years & above) than girls in class V. (3) The percentage of students with pre-school experience was very low; only 11% students had such an experience in Sirsa. (4) Majority of the sampled pupils belonged to families where father's main occupation was agriculture. (5) About 70-85% of the mothers of class V students were illiterate, while the percentage of illiteracy of the fathers ranged between 30-50. A similar trend was discernible in respect of their having primary education. A little more than half of these students said that academic help at home was provided by elder brothers and sisters. A small percentage reported help from mother or father. (6) More than half of class V students had more than 4 textbooks. Nearly one-third of the students had access to reading material, other than textbooks. About one-fifth students had access to newspapers and magazines. About 70% of the students purchased textbooks and the remaining got used books from elder brothers and sisters or from the government. (7) Most of the class V students reported that they were given dictation, homework, arithmetic problems and tests regularly. Correction of home-work was also reported positively. However, opportunity for reading aloud was reported by about 52-69%. Students in urban schools had more opportunity for reading aloud than those in rural schools. About one-tenth of students reported difficulty in understanding teacher's language in the classroom. (8) Nearly one-third of class V students repeated one or the other class and about one-tenth of students repeated class more than once. (9) About one-tenth of students reported absence from school due to work, mostly household work. Girls devoted more hours in household work than boys. (10) The class V language achievement test comprised two sections: word-meaning (WM). The test consisted of 40 items (antonyms and synonyms) and reading comprehension test had 44 multiple-choice items. (11) More then two- third students expressed the desire to study upto secondary and higher-secondary level. (12) Girls scored significantly higher in Hisar and Sirsa districts in reading comprehension and WM. (13) About 50-70% of the pupils failed to achieve the minimum mean average score of 40% in mathematics; pupils achieving mastery level was practically zero. (14) Students encountered problems in some areas such as multiplication involving zero with one number, finding place value of fraction, addition and subtraction in the same item in a statement form. (15) In class II, the mean achievement in letter reading was around six out of 10. Girls scored significantly lower than boys in Jind District. (16) Achievement levels in word reading was lower than letter reading. In Jind District, girls scored lower than boys; students in urban schools scored higher than in rural schools in Hisar and Sirsa districts while the trend was in a reverse direction in Jind District. (17) About one-third class II students could not read even a single letter. Surprisingly, the percentage of students not able to read even a single word was about 10-15. More students in the rural areas, except in Jind district, could not read even a single letter or word. Words beginning and ending with *matras* were particularly found difficult. (18) More boys aspired for higher education than girls. (19) The mean achievement of class V students in language ranged from 34.58 in Sirsa District to 39 in Kaithal District out of 84 marks. (20) Students performed better in the WM test than in reading comprehension. (21) In Hisar and Sirsa districts, mean achievement on reading comprehension test did not reach the minimum of

40%. (22) The students in urban schools scored significantly higher than students in rural schools in Hisar, Jind and Sirsa districts. (23) The mean difference in WM as well as reading comprehension tests were marginal in the case of SC, OBC and Others. (24) In Hisar, OBC students scored significantly higher than Others in WM and reading comprehension. (25) Achievement levels of SC and OBC students was lower than that of Others in WM and reading comprehension. (26) About 11-26% of the students did not score even a minimum of 40% in WM test while 40-60% students did not score the minimum levels in reading comprehension test. (27) In Hisar District, girls scored significantly higher than boys in class V (in mathematics) while in Kaithal District it was the reverse. In other districts, differences were marginal. (28) In class II, achievement levels in word reading was lower than letter reading in language. (29) Class II students in urban schools scored higher than their counterparts in rural schools in Hisar and Sirsa districts, while the trend was in reverse in Jind District. (30) The mean achievement of students in rural schools was lower than their counterparts in urban schools. (31) The literacy level of dropout students was quite low. (32) The gender difference in the mean achievements was marginal. (32) More than one-third of the dropouts could not answer even a single question correctly. (33) The percentage of dropout students with zero score in numeracy was less than in literacy. (34) More students from rural schools dropped out than from urban schools. (35) The percentage of enrollment of girls was higher than that of boys in Sirsa and Jind district while it was the reverse in Hisar and Kaithal districts. (36) In Hisar, the percentage enrollment of girls declined progressively from classes I to V. In Jind and Sirsa districts, this trend was not noticeable. (37) The average size of class I was over 40 which progressively declined by class V to about 20 in Sirsa District and 30 in Hisar District.

Implications and action points: 1. Emphasis should be on improving teaching of reading and mathematics in the initial grades. All children should be helped to achieve mastery levels in these basic tools of learning. 2. Additional practice with new words should be given to students in class II for a better learning of letters and *matras*. Students should be taught the basic concept of zero. 3. Teacher guides and in-service training should focus on loud reading from the textbooks. 4. Intervention strategies should address to increase the achievement levels of girls in mathematics. 5. Transfer of posting policy should be reviewed and rationalised to reduce dissatisfaction among teachers. [Project duration: 1993-94] {HR/06}

YADAV, MANTA & PRABHA, SNEH. 1996. **A study of role preferences of educational administrators (DPEOs) of Haryana.** *Haryana: SCERT-DMESIR, Gurgaon.*

Objectives: (i) To study the role preferences of educational administrators in the present educational set-up, (ii) to study the roles expected of administrators in the present educational system, and (iii) to find out the gap between the above two roles.

Scope and geographical coverage: Haryana State.

Methodology: The sample comprised 12 DPEOs in Haryana. Questionnaires developed by the investigators visualising the roles to be performed by the educational administration (DPEOs) was used. Roles identified for the administrators were those of manager, director, organisers, planner-evaluators, innovators, motivators, teachers and guides.

Major findings: (1) DPEOs had divergent views on their role preferences. (2) They performed their role as planners on a top-priority basis. (3) They preferred to perform their role as managers and organisers as their next priority. (4) Their preference to perform the role of motivator, guide and director was also nearly of the same level. (5) They visualised their roles as evaluators to a lesser degree. (6) Their preference for a role as co-ordinator, supervisor and controller was also of the same degree. (7) Their role as a presenter, though of utmost priority, was given the least preference by them. (8) Educational administrators were still performing the traditional roles which hampered the rapid progress in education in the state. [Project duration: January-April, 1996] {HR/07}

MRG. 1996. **Scientific evaluation of primary teachers training programme in Hindi at BRCs.** *New Delhi & Haryana: Media Research Group (MRG) & DPEP Cell, SCERT, Gurgaon.*

Objectives: (i) To assess the increase in knowledge and skills of teachers and to ascertain their opinion on training programmes (TPs), (ii) to observe teaching in schools and assess the extent of actual use of new concepts keeping in mind the skills imparted to teachers, (iii) to conduct a test among students to measure their achievement levels in Hindi language, and (iv) to identify the strengths and weaknesses of the TP, reasons for transmission loss and offer suggestions for future TPs.

Scope and geographical coverage: Haryana.

Methodology: The sample of the study for evaluation comprised 250 of the 2,257 primary schools in DPEP I districts of Haryana. Sample size of school in each district was allocated on the bases of the probability proportion to the population size. The tools used for data collection included: interviews with district, block & CRC officials, master-trainers, teachers trained and VEC members, observation techniques, tests to class II & IV students and focussed group discussions with master-trainers and teachers. Evaluation was done through: (a) Inputs of training *i.e.* methodology and package used, selection of master-trainers, quality of training of master-trainers, capability of master-trainers to conduct teacher training, (b) process of the training including those conducted by master-trainers, logistical facilities and arrangements, (c) output of the training, including increase in knowledge of teaching Hindi and adoption of new teaching methods by teachers, improvement in quality of classroom teaching and improvement among students.

Major findings: (1) 233 courses were organised at 28 BRCs in which 9,193 primary teachers were trained (*i.e.* an average of 39.5 teachers per course). (2) Profile of teachers who attended the courses indicated that 42% of them were female; their average age was 39 years, 66% of them were matriculates, 13% each senior-secondary & graduates, while 8% were post-graduates; 84% were JBTs, 13% B. Ed., 3% M. Ed., average teaching experience was 15 years, only 71% teachers were teaching single-class, their subject preference in descending order were Hindi, maths, social studies & science, their awareness about UEE in descending order centred around enrollment of children (62.3%), retentions (56.5%) and quality of education (10%). (3) Two-thirds of the teachers felt that all the modules in the training package were good. However, one-third of them did not like modules on multi-grade teaching (12%), leadership training (7%), VEC and community participation (6%), how to teach Hindi writing (5%), continuous evaluation (5%). (4) Knowledge gained during training by teachers in Hindi related to minimum levels of learning in Hindi, correct writing in Hindi, knowledge of *swar and vyanjan*, listening & speaking in Hindi, correct Hindi pronunciation, knowledge about *swar dhwani*. (5) Competency-based evaluation included both oral and writing skills and was both continuous and comprehensive evaluation. (6) Average percentage of marks secured by teachers in the test based on the package at the end of the TP was 58.8%. (7) Out of 312 classes observed, 74% were single classes while the rest were multi-grade classes. (8) 86% of the observed classes were being held in open courtyards, 6% in *verandahs* while 8% in classrooms. (9) Observed classes included 71% co-educational, 17% boys-only while 12% were exclusively for girls. About 11% teachers used lecture methods, 53% used you read method, 21.5% resorted to self-reading method, 12.5% song/dance method, 3.2% group formation method, 2.9% each for way and competency-based methods, 2.2% activity-based, and 1.0% child-centred methods. (11) Only 24% teachers used blackboard while 17.7% only used teaching aids in classroom teaching. (12) About 13% of the primary school children were reported to be generally attentive in the classroom; 59% were happy and enjoyed their studies. (13) Quality of teaching Hindi observed in the classrooms was reported to be average with 54.8%, while 27.9% were poor and 17.3% good. (14) Average percentage of marks scored in the achievement test by class II students was 50.2%; 13% scored more than 80%, 29% between 61-80%, 35% between 41-60% while 23% secured less than 40% marks. (15) In class II achievement test, boys score in the state on the whole was slightly better than that of the girls; in Jind and Sirsa districts it was better while in Kaithal District, it was almost equal. (16) Average score of children in class IV achievement test was 30.4% with 4% more than 60% marks, 11% scored between 40-60%, 30% between 31-40%, 25% between 21-30% while 26% less than 20% marks. (17) In class IV achievement test, girls' score in the state on the whole was slightly better than that of boys; the same applied for Hisar and Kaithal districts, while in Jind and Sirsa districts boys scored better than girls. (18) About 49.8% of the primary schools were visited once a week, 44.4% once a month, 5.2% once in 3-4 months and 3.1% were never visited by the CRCCs. With regard to the visits of BRCs in these schools, it was 30.3% of the schools were visited once a month, 28.2% once in 3-4 months, 5.8% once a year while 29.7% schools were never visited. District officers' frequency of visits to these schools was 44.4% once a year, 50.6% never, 5% once a month. (19) Visits of CRCCs to schools was peripheral, more for the collection of information & *dak* and holding of purpose-less routine meetings. (20) In the perception of supervisory officers, very few teachers used new methods of teaching and were not ready to give up old methods. (21) Multi-grade teaching was found to be practice in just 21.2% of the primary schools. About 23% of the teachers used classroom teaching aids.

Implications and action points: 1. Master-trainers appointed in TPs should be subject specialists, well-trained, experienced, willing to use inexpensive and local-specific teaching aids wherever necessary, receptive to new ideas and new methods of teaching. They should be a judicious mix of retired and in-service teachers. (2) Training should be subject and class-specific, based on curricular and textual material conducted in actual or simulated classroom situation. (3) Training package should be simple and easy to understand. (4) Training should be conducted during summer vacations for a 5-day duration with not more than 6-7 hours each day. [Project duration: May-July, 1996] {HR/08}

ARORA, VINOD. 1996. **A study on institutional development of SCERT and DIETs in Haryana.** *Haryana: DPEP Cell, SCERT, Gurgaon.*

Objectives: The major focus of the study was on the service delivery mechanism in providing training and extension of support to teachers in the educational system including capability of the institutions in delivering the envisaged output, resource and infrastructure support, structure and policy issues and also the role of DPEP in strengthening these institutions. The specific objective were: (i) To find out the changes which took place over the years in role and functions of SCERT and DIETs, (ii) to study the difference between stated functions and perceived functions of the institutions and how these affect their functioning, (iii) to know the existing status of the institutions in terms of physical, manpower and other resources, along with linkages, (iv) to know the activities of the institutions and the role played in achieving its objectives, (v) to find out their existing strengths and weakness, and (vi) to suggest mechanisms for strengthening the development process of these institutions for meeting the challenge of UEE.

Scope and geographical coverage: DIET Mathersham (Hisar), DIET Gurgaon and SCERT, Haryana & Gurgaon.

Methodology: The available primary literature and secondary information was reviewed. Their academic staff and other concerned authorities were contacted individually with pre-test guidelines to collect various information and their opinions/suggestions on different issues. Their responses were validated in various group discussions. DPEP guidelines, district and state components of AWP&Bs were also studied.

Major findings: (1) In most states, SCERT constituted the academic wing, subordinate office of the education departments; in most cases they started as SIEs, SIScEs. (2) The organisational set-up of SCERT varied from state to state. Generally, their departments included teacher education and extension services, curriculum and textbook development, evaluation, educational technology, population education, vocational education, educational research, special education, computer education, science education, languages publication and dissemination etc. (3) SCERT's functions included provision of academic support for qualitative improvement in school education through re-orientation of contents, processes, practices of education including promoting and co-ordination of research activities in all sectors of education, organising in-service and job training programmes, developing training methods, tools and practices, developing educational techniques and practices in classroom situations, undertaking experimental, innovative programmes for school effectiveness. (4) Research evidence on the functioning of SCERTs was conspicuously absent. (5) Through financial assistance of the Central government, measures have been taken by different states to revamp the SCERTs and these include conversions of SCERTs into autonomous institutions, revamping recruitment policies in order to induct professionals. (6) DIETs were a recent phenomenon established progressively under NPE 1986 and Programme of Action 1993 as district-level tiers for improving teacher efficiency in elementary and adult education. (7) Major functions of the DIETs included pre-service teacher education, in-service teacher education, provision of resource support and conduct of research to achieve the overall objective of professional development of teachers. (8) SCERTs and DIETs had been strengthened under DPEP where this programme was in operation through the appointment of additional staff in the related functional areas. (9) SCERT Haryana and the DIETs in Haryana were under the administrative control of the Directorate of Secondary Education though DIETs performed work related to primary education. SPD, except for the staff appointment under DPEP and related issues, had no administrative linkage with these institutions. (10) DIETs in Haryana comprised three functional units *i.e.* pre-service unit, in-service unit and district resource unit (DRU). (11) SCERT Haryana prepares annual calendar of activities which is approved by the Directorate but there was no mechanism in DIETs in Haryana. (12) DIET Gurgaon had 13-member programme advisory committee to address technical issues but it rarely met. (13) Service delivery mechanism in DIETs in Haryana was not up to the mark. Staff did not seem to be motivated enough for initiating a systematic process for better performance. (14) With a view to reduce transmission loss, SCERT Haryana, in DPEP-related teacher training programme, adopted a new strategy of two-tier cascade mode of training master-trainers at SCERT and primary teachers at BRCs. (15) In DPEP programmes, DIETs provided adequate support to BRCs and CRCs for imparting training to teachers, carried out research & evaluation work and monitored training programmes. In DIETs in Haryana, most of the faculty members were not involved in DPEP planning process and there was no mechanism to review the progress except through monthly or periodical reviews at the SPD level. (16) Most of the members in (Haryana) DIETs did not formulate their job charts. They had no clarity about assignments relating to their job except pre-service training. Adhoc-ism was the rule rather than an exception in carrying out their assignments. (17) There was no proper follow up mechanism of the teachers training in classrooms even though there was a routine practice of collecting feedback from participants on completion of the training programmes. (18) Staff supervision in DIETs by head of the institutions and in SCERT by their immediate supervisors were virtually non-existent, thereby diluting the optimum efficiency and output of the staff. (19) SCERT Haryana conducted JBT entrance examinations which kept the entire institute occupied approximately for three months thereby adversely affecting their other academic activities. (20) In DIETs, utilisation of libraries was sub-optimum. (21) Decision-making process in SCERT and DIETs was centralised. Participation of faculty and the other staff in decision making was minimal. (22) SCERT did not provide supervisory support to DIETs owing to lack of mechanism. DIETs also did not extend the required supervisory support to BRCs. (23) There was no separate training cadre and the placement in DIETs and SCERTs was done by posting and transfer from the education system without any well laid out policy or criteria. (24) Training was perceived as an activity forced by the donor agency, not as a need for improved performance.

Implications and action points: 1. There should be a well-defined state training policy for the primary education system encompassing goals & objectives, strategies, implementation guidelines etc. 2. State training advisory groups comprising experts, teacher representatives of DIETs, SCERT, DPE should be constituted to co-ordinate, provide technical assistance and monitor training activities envisaged under DPEP. 3. Separate training cadre should be created. Present training staff be should be screened, only those with professional aptitude be retained in the training positions which may be filled through open selection. All staff in the training system should undergo induction. replacement training and the faculty be groomed as per interest of the individuals. Training system should be autonomous with SCERT at the apex to provide technical, administrative and financial support to DIETs and BRCs in the state with proper monitoring, reporting and feedback system. 4. Each institution should develop its own activity plan with involvement of all and in consultation with the education system and higher-level institutions. 5. SCERT should be overall incharge of the training system including development of training system, training package, conduct & monitoring of the training, providing supervisory support etc. 6. Research and action research should receive adequate attention. SCERT, DIETs may undertake such researches which may have bearing on improving implementation of DPEP. [Project duration: April-September, 1996] {HR/09}

GULATI, G.C. & LAL, RATTAN. 1997. **A study on monitoring and evaluation of training of anganwari workers at BRCs.** *Haryana: DPEP Cell, SCERT, Gurgaon.*

Objectives: (i) To monitor and evaluate training of *anganwari* workers at the BRC level, (ii) to assess transmission loss in the training of *anganwari* workers at BRCs in comparison to the training of master-trainers in SCERT, (iii) to study the attendance pattern of *anganwari* workers in the training programme (TP), (iv) to determine the attendance pattern of master-trainers in the training courses, (v) to develop pre-education skills in *anganwari* workers, (vi) to identify difficulties of *anganwaris* in running their centres, and (vii) to suggest measures for enrollment of more children in *anganwaris*.

Scope and geographical coverage: Hisar, Kaithal, Jind and Fatehabad districts.

Methodology: The sample comprised 307 *anganwari* workers from 8 *anganwari* centres randomly selected from four DPEP districts. These were intensively monitored as well. A questionnaire comprising two parts was developed by the researcher. First part of the questionnaire had 10 items while the second part contained multi-purpose questions for workers' self assessment. The data was analysed using percentages.

Major findings: (1) There were four master-trainers at each centre to conduct the training. (2) The average period of stay of *anganwari* workers in the training programme ranged between 6-6½ hours daily. (3) Average daily stay of master-trainers at the training centres ranged from 6.25-6.45 hours. (4) Attendance of *anganwari* workers during the training was 100% on all days and at all centres. (5) In Hisar district where training was monitored at Hansi I, Hansi II and Fatehabad during 16-20 December, 1996, about 83% of the 111 workers in these areas participated in the programme. (6) In Kaithal, Gulha, Kalayat and Rajound çentres about 80% of the 162 workers in these areas attended the programme held during November 27-December 1,1996. (7) In Jind district where training in Philukhera centre alone was monitored, 78% of the 34 workers in the area participated in the programme. [Project duration: December 1996-January 1997] {HR/10}

CHUTANI, M.C. & LAL RATTAN. 1997. **A study on identification of training needs of primary school teachers in mathematics.** *Haryana: DPEP Cell, SCERT, Gurgaon.*

Objectives: (i) To assess the specific views of teachers on the teacher training conducted at the BRC-level during 1995-96, (ii) to identify particular areas, methods and difficulties faced by teachers in teaching mathematics at the primary level, (iii) to assess the availability of mathematics kit in schools, (iv) to evaluate the usage of maths kit in classrooms, (v) to identify reasons for low achievement of students in Maths, and (vi) to enlist topics that teachers would like to be included in teacher training package in 1997-98.

Methodology: The required data was collected from 400 teachers - including 185 female and comprising 287 government primary school teachers working in rural schools selected through purposive sampling. A questionnaire to assess in-service training needs of teachers in maths was developed in a workshop, was pre-tested and duly modified. DPEP faculty in SCERT administered the questionnaire to teachers. The teachers were allowed to consult maths textbook if they so desired. The data were analysed using percentages.

Major findings: (1) Most of the topics discussed in the training were useful for teachers. (2) Teachers were satisfied with the effective delivery of modules. (3) There was a meaningful display of teaching material during the training. (4) Training was truly participatory, involving all participants & dispelling their doubts. (5) Participants received training material well in time. (6) Training was activity-based. (7) Module on student's achievement & evaluation was deliberated in detail but module on remedial teaching methods was peripherally discussed. (8) In class I, difficult topics in mathematics for children as rated by the teacher in descending order were drawing square & triangle without instruments, recognising square, rectangle, triangle & circle, ascending & descending order of numbers etc. (9) Topics (in maths) felt difficult by class II teachers in order of priority were constructing square, rectangle & triangle by using objects, problems of addition and subtraction pertaining to daily life, relation of days to week, weeks to month and identification of objects on the basis of surface, understanding place value etc. (10) Difficulty level experienced by teachers in teaching different topics in mathematics in Class III in descending order were identification & classification of different solid objects such as cube, cuboid, sphere, cylinder & cone, comparison of fractions, addition & subtraction of fractions, understanding of proper fractions etc. (11) Difficulty-wise mathematics topics in Class IV as assessed by the teachers in ranking order were expressing ordinary fractions into decimal fractions & *vice versa*, understanding decimal fraction, drawing a cord of a given length in a circle, writing fractions in ascending or descending order etc. (12) In class V difficulty-wise topics assessed in descending order were division of decimal fraction with a decimal fraction, reading railway time-table, conversion of simple & decimal fractions into lowest form etc. (13) Nearly all teachers claimed availability of maths kit in their schools but simultaneously admitted its non-use in the classroom. (14) There was more focus on oral maths in Class I which went on decreasing successively in higher classes. (15) Causes of low achievement in maths of primary students in ranking order were irregular attendance of students in school, multi-grade teaching, higher pupils-teacher ratio, habit of mugging up answers without understanding difficulties, disinterest of students, lack of proper teaching methodologies and defective evaluation system. (16) Suggested topics for incorporation in teacher training package in order of priority were: use of maths kit by teachers, games & puzzles relating to mathematics, continuous comprehensive evaluation in Maths, constructing competency based items, planning enrichment activities for fast learners, selection and preparation of proper teaching aids, remedial teaching for slow learners etc. [Project duration: December 1996-February 1997] {HR/11}

GULATI, G.C. & LAL, RATTAN. 1997. **A study on monitoring and evaluation of *anganwaris* in Hisar, Fatehabad and Jind District.** *Haryana: DPEP Cell, SCERT, Gurgaon.*

Objectives: (I) To monitor the infrastructural facilities available in *anganwaris* in the districts, (ii) to monitor the attendance of children in the *anganwaris*, (iii) to assess the qualifications of *anganwari* workers, (iv) to evaluate the working of *anganwaris*, (v) to assess the community support to *anganwaris*, and (vi) to offer suggestions for effective functioning of *anganwaris*.

Scope and geographical coverage: Fatehabad, Jind and Hisar districts.

Methodology: The sample comprised 13 *Anganwaris*, 3 in Fathehabad, 4 in Jind and 6 in Hisar districts.

Major findings: (1) 80% of the *anganwari* workers were matriculate and 20% of them had +2 qualifications. (2) All the *anganwari* were equipped with play-way material, 5 out of 13 *anganwari* had a proper building and playground for indoor and outdoor activities. (3) In some villages there was no co-operation from the community in providing buildings for *anganwari* though they had spare chaupals. (4) Attendance in *anganwari* during the visits was 317 out of 589 *i.e.* 55% of the children were present. (5) Attendance of children in Jind District was less in comparison to that of Hisar and Fathehabad districts.

Implications and action points: 1. Provision for annual grant of Rs 100 to *anganwari* to purchase stationery etc. 2. *Anganwaris* be attached to primary schools in villages. [Project duration: September-December 1997] {HR/12}

JOSHI, J.N. 1997. **Improving competency and evaluation of ongoing training programme in maths.** *Chandigarh: Institute for Development and Communication.*

Objectives: (i) To assess the perception of trainees before and after training programmes in order to ascertain the extent of realisation of expectations from the training an indicator of their personal development in respect of change in their outlook, attitude and acceptance of the programme, (ii) to assess the level of enhancement in the competence of teachers to handle hard spots in teaching of mathematics and Hindi, as addressed in the training modules, (iii) to evaluate and observe the judicious manipulation of the process variables in the course of actual training sessions, and (iv) to evaluate the success of training programme, identify the strengths and weaknesses and make use of the feedback in improving the training programme (TP).

Scope and geographical coverage: Hisar District *et al.*

Methodology: The sample for the study comprised 123 teachers, 33 master-trainers, 10 BRCCs, 22 CRCCs, 12 district-level officers and 11 DIET faculty members who were interviewed. 81 group discussions were held and 423 teachers were also interacted with in informal settings. Questionnaires for different categories of persons and case study formats developed by the researchers were the other tools of data collection. Orientation was provided to evaluation teams regarding observation of training, conducting interviews, focussed group discussions etc. Observation by the evaluation team of ongoing master training programme in SCERT was done to know the process and extent of transmission loss in the actual training, process, involvement, participation, display of interest and acceptance of the programme by teachers in the BRCs. Semi-structured interviews were carried out with participants to assess their reactions on various aspects of the training programme. Interviews with master-trainers regarding teachers' interest in training and the clarity in content. Interviews were also conducted with officers regarding suitability of retired and in-service master trainers etc. Focussed group discussions with teachers, master-trainers and others were held. For conducting the field survey, training centres were selected randomly, one in each district, except in Hisar where four centres were surveyed. Field surveys included details about the venue of the training, profile of master-trainers & teachers, details of interviews etc. While conducting the case studies in the seven blocks, each block was treated as a case which included perception of trainees before and after training, reaction of other functionaries and other relevant information including supervision, facilities available, role of BRCs utilisation of funds etc. Contents of the interviews were systematised, categorised, recorded and analysed for obtaining the main trend.

Major findings: (1) Topics included in the training package (maths 9, language 3, general awareness 6) were found to be genuinely representing hard spots. However, there was a demand for including more topics in maths. (2) Training of teachers in dealing with hard spots in mathematics was helpful in a better understanding of the contents. (3) The transmission losses from training of master-trainers at SCERT to the training of primary school teachers was almost non-existent. (4) The training programme was accepted by majority of the trainees favourably. (5) Initial response of the trainees towards training was casual in the beginning but as it progressed, a marked change in their attitude was noticed. (6) Process of training master-trainers at SCERT and of teachers at various centres indicated that their training was content-oriented with least concern for how teachers themselves would put the content across in classroom situations with primary school children as the target group. (7) Visits by various district-level officials at most of the training centres were infrequent and a mere formality. Their interventions were mostly non-academic resulting in uncalled for interruptions, disturbing the training environment. (8) The role of DIETs in implementation and organisation of the training programme was rather undervalued and underestimated.

Implications and action points: 1. Most of the activities needed to be related to real objects while teaching mathematics at the primary stage. Prototype of objects may be used for demonstration. 2. Activities and visual presentation need to be simple in accordance with the maturity level of the children. They should be synchronised with the sequence of learning tasks along with description, interpretation and explanations at appropriate places in the course of classroom transaction. 3. Training package needed further improvement through meticulous choice of illustrations, use of material aids and careful editing of text before passing on to the users. It should adhere to the modular approach. 4. Perception of the trainees about the capability of master-trainers suggested that only graduates, preferably post-graduates in specific subjects be selected for understanding the task of master trainees in the future. 5. Minute details of the management aspects of the training programme need to be planned systematically and focussed optimally. 6. DIET faculty should be involved for supervision and monitoring of each training programme. 7. Intensive group discussions should be extended beyond the content of instructional package to areas of developing locally-relevant low-cost aids dealing with children with special needs and finding possibilities of suitable methodologies in accordance with needs of children in areas like Mewat and for girls, as and when required. [Project duration: May-July 1997] {HR/13}

Ed.CIL. 1997. **A study on community mobilisation and participation in DPEP.** New Delhi.

Objectives: An assessment of the status, dynamics and potential of community mobilisation and participation of VECs in accomplishing the goals of DPEP.

Scope and geographical coverage: Kaithal and Hisar districts.

Methodology: The sample of the study comprised 8 VECs from two blocks - Kaithal and Pundri in Kaithal District and 8 VECs spread over five blocks - Hisar I, Hisar II, Fathehabad, Ratia and Siwani in Hisar District. The study process was designed to maximise understanding of the process-based and contextual features of community mobilisation and participation of VECs in DPEP. Data collection and analysis was carried out by two teams consisting of two members each, one for each district. Relevant primary and secondary data sources were consulted at state, district, block, cluster and village levels. A combination of semi-structured interviews and group discussions were used for collecting data from primary sources.

Major findings: (1) There was a need for ensuring sustained efforts in community mobilisation in addition to strengthening of VECs. (2) VECs needed continuous inputs and support to develop the necessary linkages with the community, community groups, *panchayat* and DPEP staff in order to be effective and sustainable. (3) By and large, most VECs had been constituted according to the state norms and were inclusive of the participation of weaker sections and women. Almost all the VECs had 50% women as members but these women by and large fell in the category of teachers, *anganwari* workers or health workers. (4) VEC membership had been identified on the basis of high levels of educational qualifications of individuals. (5) VECs which were very effective and active had a very high percentage of educated persons (80-90%). (6) There was need for creating mechanisms whereby the systems established for functioning of VECs do not become rigid and bureaucratic. (7) The community had been contributing to the needs of the schools. (8) VECs which functioned effectively were also actively involved in a number of initiatives other than those specified in DPEP documents. (9) Inadequate attention was paid to capacity building of VECs on the whole and its individual members as well. (10) Importance of building linkages between VECs and the villages at large was felt. [Project duration: July-August 1997] {HR/14}

KAUL, VINITA. 1997. **Early childhood care and education (ECCE) in DPEP-I districts, an assessment study.** *New Delhi & Haryana: DPSEE, NCERT & DPEP Cell, SCERT, Gurgaon.*

Objectives: (i) To assess the realisation of ECCE by the state in view of the strategies planned, (ii) to study the different approaches adopted within a state and between states, (iii) to assess the management, quality and coverage of training extended to ECCE workers, (iv) to assess the role and impact of ECCE in enhancing the enrollment and retention of children in general and the girl child in particular and reducing dropout in class I, (v) to assess the support provided by ECCE programmes in preparing children for school, (vi) to understand the extent of coverage with ICDS and effectiveness thereof, and (vii) to understand the contributions of DPEP through materials, kit and training in order to improve the functioning of ICDS.

Methodology: This included interactions with senior officials and functionaries form both DPEP and Department of ICDS at the state and district levels. Field visits were conducted and *anganwari* centres visited. In addition, views of the BRC and CRC co-ordinators and VEC members regarding their role and contribution towards ECCE were also taken. The tools used for data collection included observation schedule for assessing quality of ECCE programme, interview schedule for ECCE workers and *anganwari* workers, interview schedule for community interaction, school linkage programme for ECCE, *anganwari* workers and primary school teachers, and enlisting referral points for discussion for meeting with SPD and state officials, VEC members, DIET faculty, BRC and CRC co-ordinators.

Major findings: (1) Community did not perceive the AWCs and primary school in continuation as programme for children. (2) Coverage was also needed in areas of monitoring and supervision of ECCE activities between the ICDS and DPEP, aiming towards a need-based convergence at all levels. (3) Publication of a quarterly magazine for *anganwari* workers with collaborative effort of ICDS and DPEP was on the cards. (4) The Central government laid emphasis on shifting ICDS centres to primary schools and synchronisation in timings seemed to lack both in quality and quantity of ECCE activities covered. (5) The training, as well as trainers, were not very clear about the concept and purpose of pre-school education. (6) Classroom management, child participation and group activities were the other areas which needed extra attention. (7) *Anganwari* workers also needed more training in the effective use of materials and kit provided by SCERT.

Implications and action points: 1. ECCE interventions had made a positive impact on girl participation and community awareness. There was a need to strengthen linkages and create awareness on the significance of ECCE at the lower level, particularly in advocating a play-based development-oriented programme, and to meet the community pressures for teaching the three Rs. DPEP, in co-operation with ICDS, should invest in the preparation of software for advocacy programmes. 2. Some baseline surveys/research study needed to be undertaken to study the adequacy of *anganwari* centres in villages. 3. For a systematic convergence strategy, it was necessary that need assessment studies of the ECCE component of ICDS be conducted under DPEP, preferably in participatory-mode with ICDS. 4. Convergence was visible at the state level but not at the district level. Joint training, orientation programmes for ICDS and DPEP personnel at all levels was needed. Co-ordination of various ECCE activities needed to be further strengthened between DPEP and ICDS. 5. Monitoring and supervision had to be strengthened at all levels. Emphasis should be on need-based monitoring. [Project duration: 1997] {HR/15}

NAYAR, USHA ET AL. 1997. **An action research project on universalisation of primary education among girls and disadvantages groups in Kalayat block of District Kaithal.** *Haryana & Chandigarh: DPC, Kaitahal & SPO, HPSPP.*

Objectives: (i) To carry out an in-depth analysis of the educational & social condition of girls and children of disadvantaged groups in all villages in the block in a participatory mode, (ii) to launch a comprehensive action project of six-month duration in all the villages in the block to support State efforts in reaching the goal of UPE, and (iii) to highlight the processes initiated and the strategies developed for mobilisation, along with a plan of action focussing on girls and children of disadvantaged groups.

Scope and geographical coverage: Kalayat block in Kaithal District.

Methodology: The study, conducted in all the 33 villages in the block, used action research mode incorporating participatory research techniques. Concerned teachers and educational administrators were included in the study team for carrying out diagnostic exercises and working out mobilisation strategies.

Major findings: (1) Access to primary schooling was not the problem since every village had a primary school, some villages had more than one. (2) Eighteen villages had a primary school exclusively for girls. Kalayat had the highest number of separate schools for girls in Kaithal District, the lowest number of such schools was in Kaithal block. (3) Nearly all villages had fee-levying private primary and middle schools. The larger villages had more than one school and Kalayat city had 11 such schools. (4) There was a marked improvement in infrastructure. Schools in Kalayat were in good shape with a boundary wall and separate toilet for girls. However, the problem still persisted in primary sections attached to middle or high schools. (5) Annual grant of Rs 2,000 was being fully utilised. In some villages, the community gave further support to meet the shortfalls. (6) Due to excessive enrollments, space shortage was very real and extra classrooms were needed. (7) Girls constituted 44% of the total enrollment in government primary schools in Kalayat as per the MIS data for 1996-97. The female share of population in Kalayat being 45.32% (1991 census), the educational participation in government schools was close to parity. (8) Block-wise, percentage of girls to total enrolment was the lowest in Kalayat block (44%) and highest in Pundri block (49%). In the District, share of girls in school enrollment was 45% and the percentage of female population in the district was 46. (9) SC children constituted about 29% of the total enrollment in classes I-V, whereas the share of SC in total population of the block was 21%. (10) The GER for boys was 91.5 and 84.1. for girls in Kalayat block compared to 86.8 for boys and 85.2 for girls in the District. (11) In Kalayat block, the male-female gap in GER was 7% points whereas it was less than 2% points for district Kaithal as a whole. (12)The GER of SC boys was 89 and for SC girls was 87, which was better than the district average. (13) With regard to SC children, the GER was far higher in Haryana on the whole at 108 for boys and 106 for girls, compared to all-India figures for the same. However, in Kaithal District, the GER for SC boys was 82.1 and for girls it was 81. (14) The retention rate (RR) for Kaithal District as a whole improved from 55.11 in 1994-95 to 57.50 in 1995-96 and to 61.47 in 1996-97. (15) The RR of girls in the district at 64.24 was better than that of boys in the district. (16) The share of SC girls to total SC children enrolled, however, dropped form 45.1% in 1994-95 to 41.52% in 1995-96 and showed recovery in 1996-97 when it was 44.27%. [Project duration: 1996-1997] {HR/16}

AGGARWAL, V.P. & MITTAL, S.R. 1997. **Evaluation of teacher training programme, first cycle under DPEP in Hisar and Sirsa districts.** *Ajmer & Chandigarh: RIE & SPO, HPSPP.*

Objectives: (i) To evaluate primary teachers' training programmes, first cycle organised under DPEP in the two districts, and (ii) to offer suggestions for effective training.

Scope and geographical coverage: Hisar and Sirsa districts.

Methodology: Out of 11 BRCs in Hisar district, 4 BRCs namely Hisar II, Hansi I, Hansi II & Siwani and out of 6 BRCs in Sirsa district, 2 BRCs namely Kalanwali and Dabwali were randomly selected. Monitoring and evaluation proforma was developed by the researcher.

Major findings: (1) Training programmes at Hisar II, Hansi I, Hansi II and Kalawali were poorly organised. Seating arrangements were inadequate; physical amenities were lacking. (2) Lecture method was mainly used by master-trainers at Hisar, Hansi I and Hansi II. (3) Training programmes at Siwani and Dabwali were well organised. Participants were active, motivated and involved in meaningful group activities. (4) There were more than 40 participants at Hisar II, Hansi I and Hansi II centres.

Implications and action points: 1. Number of participants in each group should not exceed 40. 2. Meaningful and joyful educational group activities should be encouraged. 3. Heterogeneous groups of participants should be formed. 4. Each group of participants should be encouraged to suggest exemplar activities. 5. More group activities should be organised for transmission of awareness modules such as school readiness, continuous and comprehensive evaluation etc. 6. At each centre, there should be at least two resource persons in Hindi. 7. Resource persons should be competent enough to organise joyful activities for participants. 8. For correct pronunciation, audio tapes should be used. 9. More stress should be given on sound discrimination of vowels and consonants. 10. Participants should be encouraged for model reading and writing. Resource persons should also avoid use of local dialect in their presentations. 11. Low-cost teaching aids prepared by participants should be evaluated by a group of experts/research persons and due recognition be given to creative participants. 12. Adequate physical facilities for effective training should be made available at all centres. [Project duration: January-March 1997] {HR/17}

GEORGE, D., SINGH, DEVINDER & ANAND, G. 1997. **Social assessment study in Bhiwani, Gurgaon and Mohindergarh districts of Haryana.** *Haryana: Faculty of Economics and Development Planning, HIEPA, Gurgaon.*

Objectives: (i) to analyse specific problems of girls and children of other disadvantages groups like Meos, SCs with respect to their enrolment, retention and achievements in the State, with special reference to Gurgaon, Mahindergarh and Bhiwani districts, (ii) to assess the available evidence on the effectiveness of various schemes that are in operation, and (iii) to assess the views and constraints in ensuring effective participation of these children and possible strategies for overcoming these constraints.

Scope and geographical coverage: Gurgaon, Mahindergarh and Bhiwani districts.

Methodology: Profiles of the above districts in terms of their geographical location, social structures, educational contexts, occupational pattern, socio-economic viability, primary school infrastructure, primary children enrolment, retention and dropout rates, primary school children profile including their achievement level, VECs profile, *anganwaris* and health faculties for children and women were studied. Multi-stage participatory methodology was used. First stage consisted of collecting all relevant spatial and non-spatial data through Focus Group Discussions (FGDs) organised on the basis of social group dynamics of a particular area. FGDs were accordingly separately organised for: (a) SCs, OBCs & other disadvantaged groups, (b) exclusively for urban areas, (c) for girls only, (d) for general population in rural areas. FGDs mapping was done keeping in view the enrolment pattern of different social groups. Ethnographic approach using participatory observation medium was used to prove a base for generation of data as well as to gain qualitative insights in the myriad social issues. Non-spatial data in public domain was culled out from annual reports, research studies, five-year plan documents and other relevant literature. First stage for collection of data was at the block level and the second stage at the village level in these blocks of the concerned districts. Criteria for site selection for FGDs in both stages were: (a) blocks/villages where present enrolment and retention rates are low for disadvantaged groups such as Meos, SCs, girls and children or other identified groups, girls and children of other identified groups, (b) where the preceding was high. FGDs were carried out in three phases for gathering information on primary education services actually being offered at the grassroots level, social dynamics operating in the field and a sharp rural urban dichotomy existing in these districts.

Major findings: (1) There is an upward pressure on the demand for primary education in all the three districts. However, there is a sharp rural-urban divide emerging. (2) In teachers view, low enrolment of girls in all the districts combined was due to engagement in domestic work (40%), involvement in occupational economic activities for livelihood strategies (25%) and lack of infrastructural facilities (18%). Parents also gave the same causes with the added reason of social biases. (3) Retention of girls in primary classes was perceived to be a universal problem in all the three districts giving birth to the serious problem of dropout of children from the school system. (4) Situation could be remedied by making classes more interesting and creative with teachers establishing a rapport with parents of the children and local community. (5) There was a universal understanding about the benefits of educating girls. (6) Incentive facilities had been extended to SC girls but Meo girls complained of discrimination for not being provided with these facilities. (7) Achievement levels of students, particularly in rural primary schools was very low (8) Participation of SC children in schools was proportionately high compared to their absolute population in these districts due to various incentives. (9) These incentives should be provided to other segments of the population too. [Project duration: April-December 1997] {HR/18}

Sharma, Sudha et al. 1997. **A finance study on education in Haryana: 1985-86 to 1996-97.** *Haryana: Finance Department.*

Objectives: (i) To determine study trends in state accounts: receipts, expenditure, surplus/deficits and interest payments, (ii) to asses separate reports of plan & non-plan expenditure on education de-segregated by level (elementary, secondary and higher) of: (a) department of education, and (b) other departments, including department of social welfare, (iii) to determine revenue and capital expenditure on education as percentage of total revenue and capital expenditure, (iv) to study plan expenditure (planned, projected & actual till date) by level of education for seventh plan, interim years and eighth plan, (v) to assess expenditure on education by level as a share of total plan expenditure, (vi) to study expenditure by level from centrally-sponsored schemes and in case of elementary education, expenditure by individual schemes, (vii) to assess primary school expenditure de-segregated by item *i.e.* teachers, salaries, textbooks, equipments, TLM etc, (viii) to workout number of primary teachers employed by qualification and salary, and (ix) to make a short description of each incentive scheme including number of beneficiaries, criteria for selecting beneficiaries, costs of scheme etc.

Scope and geographical coverage: Haryana State.

Methodology: Data was collected through: financial accounts/ budgets of the state government, A.G. accounts, planning department, department of education, economic surveys of Centre and the State, Union Budget, Finance Commission report etc. The study covered the following period: 1985-86 to 1996-97. In addition to finances, it covered incentives, centrally-sponsored schemes (CSS) and other related areas of primary education having impact on finances.

Major findings: (1) During the seventh plan period (1985-1990), a total of Rs 1,074.69 crore was spent on education in the state which in percentage terms comes to 15.6% of the total state expenditure. (2) From 1985-86 expenditure on education in the state rose from Rs 145.91 crore to Rs 290 crore by the year 1989-90 *i.e.* approximate doubling of expenditure in five years with percentage ranging from 14.8% to 16.7% by the year 1989-90. Average expenditure, however, remained the same at 15.6%. (3) Expenditure on elementary education rose from the first to the last year of the seventh plan from Rs 59.24 crore to Rs 117.43 crore. (4) Average expenditure on elementary education during this plan was 41.3% of the total expenditure on education with 40.3% on secondary education and 21.6% on higher education. (5) During the annual plan, following seventh five year plan, the overall percentage of expenditure on education was 15.6% and 15.2% respectively of the total expenditure of the state and percentages of elementary, secondary and higher education was 46.7%, 35.6% and 16.6% respectively. (6) Expenditure on elementary education rose by 6.5% during the 10 years. In 1985-86, it was 40.6% but by the end of 1996-97 it was 47.1%. (7) There were other departments which showed expenditure on education under their relevant heads such as *Nehru Rozgar Yojna*, Department of Art and Culture (Libraries) and scheme of scholarship for SC/BC in the Department of social welfare. (8) In the seventh plan, the capital expenditure on education was 17.13 crore which was 2.4% of the total state capital expenditure of Rs 707 crore. (9) In the eighth plan period an amount of Rs 11.44 crore out of Rs 1,529 crore was the capital expenditure on education. (10) Over the years, in real terms, capital expenditure on education during this plan went down to quite a low level. (11) CSS (100% funded) in the state during the span of eight years *i.e.* from 1989-90 to 1996-97 were: (a) strengthening the administrative structure for implementation of adult education programme in the state, (b) setting up of Shramik Vidyapeeth at Faridabad, (c) UEE - operation blackboard scheme, (d) setting up of DIETs, and (e) setting up of NFE cell at the directorate level etc. (12) Sharing basis schemes during this period were: (a) UNICEF assisted PIED, and (b) integrated education for the disabled children (IEDC) etc. (13) Major components of expenditure on education were salaries and DA which roughly accounted 97% of the expenditure. (14) Very small percentage of expenditure was attributable to equipment, TLM etc, even though expenditure on it had quadrupled to Rs 69.5 lakhs in 1996-97 from Rs 16.7 lakhs in 1992-93. (15) Expenditure on elementary school textbooks was Rs 5.27 crores in 1992-93 constituting 2.8% of the total expenditure on elementary education. It rose to Rs 13.6 crores (4.7%) in 1995-1996 and provision of Rs 10.28 crore (3.5%) was made in 1996-97. (16) Elementary school textbooks were sold through 19 textbooks sales depot located throughout the state on no profit no loss with a 10% subsidy in costs. (17) In 1996-97 teacher-pupil ratio at primary stage was 1:47. It used to be 1:41 in 1980-81 though normal ratio ideally should be 1:40. (18) Incentive schemes to achieve the goal of UEE by the year 2000 AD were: (a) free textbooks to children from SC & weaker sections of society, (b) free uniforms to girls of SC/weaker sections, (c) free stationery & writing material, and (d) monetary benefits for nomad children etc. [Project duration: 1996-97] {HR/19}

GJU. 1997. **A study of the institutional grant of Rs 2,000 in Hisar and Sirsa district.** *Haryana: Department of Communication and Management Technology, Guru Janbeshwar University (GJU).*

Objectives: (i) to investigate the utilisation, appropriateness and effectiveness of teacher grants and school grants in Hisar and Sirsa districts of Haryana, (ii) to understand the process of disbursement of the two grants, (iii) to study the extent of qualitative changes in the school/classroom environment, (iv) to understand the process of decision making and management skills of teacher and the community, and (v) to suggest amendments to DPEP guidelines, if any, on the use of these grants.

Scope and geographical coverage: Hisar and Sirsa districts.

Methodology: The study used sample surveys, in-depth interviews, analysis of documents and non-participatory observation. The sample of the study comprised 72 teachers, 38 head teachers and 85 members of the VECs who were interviewed on the basis of a structured questionnaire. In-depth interviews of the SPD, Assistant SPD, District Project Co-ordinators, BRCCs, cluster/resource centre co-ordinators and principals of DIETs were conducted. Researchers observed three actual classroom teaching and interaction of teachers with VEC members. Documents relating to disbursement & guidelines and accounts regarding teacher's grant and school grant were analysed at various levels.

Major findings: (1) Grant of Rs 500 per teacher per annum had been provided to schools under DPEP for teaching-learning aids and consumable with a view to make the classroom attractive for children (2) Grant of Rs 2,000 per school per annum had been provided jointly to each school and VEC under DPEP for improving school facilities. (3) Channels of disbursement of teacher's grant and school grant were from SPD to DPC to CRC and to the head teacher through drafts but to the teachers it was given in cash by the head teachers. (4) Both the grants had been disbursed in one instalment, except in 1996-97 when Rs 1,500 were given as school grant and books worth Rs 500 were to be obtained for the balance amount. (5) Both teaching aids and teaching-learning aids had been bought or prepared out of the teacher's grant. (6) All the teachers had undergone at least one training for preparation of TLM. (7) All the schools now had TLM available with them. (8) Use of TLM was irregular, but whenever it was used, students took more interest. (9) TLM was more culture-specific; therefore, more effective. (10) Teachers who exhibited creative talents in preparation of TLM were engaged for providing training to other teachers. (11) Responsibility of some other schemes like mid-day meal had put additional burden on the primary school teachers which resulted in lower motivational levels for preparation and use of TLM. (12) Almost all teachers and officials were in favour of continuation of teacher's grant since they felt a perceivable difference in the school environment. (13) Most teachers were not sure whether more utilisation certificate would satisfy the administrative staff of DPEP. (14) The school grant was mainly handled by the head teacher with a marginal participation VEC. In fact, most VEC members were unaware of the grant itself. (15) The grants had been mainly used to buy tables, chairs, almirahs, mirrors and repair work in school buildings. (16) Teachers and villagers were quite appreciative of the school grants since it helped them in making the school environment better. (17) The school grant had marginally succeeded in promoting community involvement in school management. [Project duration: May-December 1997] {HR/20}

Sharma, Rattan K; Chhikara, M.S. & Dahiya, J.D.S. 1997. **Baseline assessment study in Bhiwani, Gurgaon and Mahindergarh districts of Haryana.** *Haryana: MDI & DPEP Cell, SCERT, Gurgaon.*

Objectives: (i) To ascertain the learning achievement levels of students during the primary cycle of education, (ii) to identify and explain the existing gender-wise, area-wise and cost-wise disparities, (iii) to explain possible factors relating to school, home or child that had a bearing on the learning achievement level of students, and (iv) to suggest possible interventions for bettering results.

Scope and geographical coverage: Bhiwani, Gurgaon and Mahindergarh districts.

Methodology: About 10% of the schools (however, not more than 50) in each of the districts were chosen through multi-stage random sampling. Each district was divided into rural and urban domains and further two stages of sampling at area level (block/urban area) and at school level were undertaken. The selection of a particular number of schools from educational blocks and urban areas of each district was in proportion to their number in these areas. The sample of the study comprised of 30 students from class V and 20 students from class II, teachers and dropouts. Then tests to sampled students of classes II, V and dropouts were administered. The achievement levels of class V students and dropouts was assessed through written tests whereas for class II students it was through oral tests. These tests, devised by NCERT and based on their previous class curriculum were in maths and Hindi. School teachers were interviewed. The entire exercise was carried out through a specially-trained team in a systematic way through structured questionnaires and schedules within a fixed time-frame.

Major findings: (1) The overall mean score of the students in language was low in all the districts. It ranged from 30-40% of the total scores. (2) In the three districts, Mahindergarh had lowest achievement levels. (3) There were hardly any noticeable gender-wise and area-wise differences in the achievement levels. (4) The mean achievement levels of SC/ST students in both the evaluation components was slightly less in all the study districts. (5) Number of students with no MLL was around 47% in Gurgaon while in Bhiwani and Mahindergarh it was around 61% and 69% respectively. (6) The percentage of students having mastery in language was almost nil. (7) Girls from rural areas were slightly more in the no-MLL category than of those from urban areas. (8) The overall mean score in mathematics was around 33%. (9) There was not much difference between the achievement levels of students across gender, area and caste. (10) More students were in the no-MLL category in mathematics than language. (11) There was hardly a student who had attained mastery levels in mathematics in these districts. (12) Mahindergarh had highest students with no-MLL. (13) Data pertaining to dropouts revealed that the number of girls was higher. (14) Students from rural areas were more likely to become dropouts. (15) Dropouts from SC/ST category were more than in OBC and other castes. (16) More dropouts were in the age group of 10-12. (17) Most of the parents of the dropouts were engaged in farming (fathers) and household work (mothers). (18) Most of the parents of drop outs were illiterate. (19) Providing assistance in household and illness were the main reasons for dropouts. (19) There were more male than female teachers and this was significantly more in Mahindergarh. (20) Most of the teachers were from rural areas belonging to castes other than SC/ST and OBC. (21) Majority of the head teachers were male. (22) Most of the teachers were more than 45 years of age indicating lower recruitment of younger teachers. (23) Percentage of graduate/post graduate teachers was higher in Mahindergarh than in other two districts. (24) All teachers were professionally qualified; 90% of the teachers had attended one or more in-service training programme; almost all teachers proposed for more short-duration programmes at frequent and regular intervals. (25) Teaching facilities in the schools were inadequate; a sizeable number of schools had less number of teachers than the number of classes being held, leading to multi-grade teaching, particularly in rural areas. (26) Maximum time of teachers was spent on providing tuitions to the students. (27) Textbook was the main basis for teaching in the class and less efforts were made to develop additional teaching material. More than 90% of the teachers asked children to read out from the text books. (28) Assigning home-work was stated to be a regular feature; quantum of home-work in language consisted of one to two pages and in Mathematics four to six sums daily. (29) Two-fifth of the teachers were serving in the present schools under compulsion. (30) 50% of the teachers stated that the head teacher/BEO visited their classes for supervision; however, supervision of schools by BEOs was peripheral. (31) Head teachers gave priority to the attitude and co-operation of teachers for smooth functioning of the schools and better results. (32) Girl students outnumbered boys in Bhiwani and Mahindergarh districts. In Gurgaon, education of girls was less popular. This was possibly because of inclusion of Mewat area in the sample where such a situation prevailed. (33) About 1/3 students belonged to SC/ST category. Three-fourth students in the sample were from rural areas. (34) Pre-school teaching/learning was uncommon. (35) Majority of students in class II were in the 6-7 years age group. (36) The overall mean achievement in language was 44%. Boys and girls has almost similar levels of achievement. (37) Reading words was found to be more difficult than reading letters. (38) Urban and rural students, excepting Bhiwani, had almost similar scores. The mean score of students belonging to SC/ST was lower than others. (39) About 1/5 of students could not read even a single letter. The percentage of such students varied across districts. The percentage of students with zero level of learning was higher in rural areas. (40) Achievement levels in mathematics ranged from 36-46%. Position in number recognition was better than in addition and subtraction. Achievement levels of boys in numeracy was higher than girls but was with less difference across rural and urban areas. (41) Students at zero level of learning were more in language than in numeracy. There were lesser number of boys than girls at zero level of learning. More urban students were at the zero level of learning, whereas more of the rural students were achieving mastery. (42) Students from SC/ST lagged behind in numeracy too. (43) Average size of classes varied from 24 to 44 students. Size of classes from grade I-V was in descending order. Girls students outnumbered the boys. 70% students were from rural areas. (44) Dropouts among the girls was three times higher than boys. Dropouts in rural area was six times higher in urban areas. In urban areas of Bhiwani and Mahindergarh district, there was no dropouts at all, as per the school records. (45) Average number of teachers in the schools varied from three to four, leading to multi-grade teaching. (46) About 68-70% schools did not have provisions for safe drinking water and toilet facilities. Electricity was not available in more than 80% of the schools. 40-60% schools did not have chairs and tables for teachers and game equipments for students. First-aid kit was available only in 10% schools. (47) Almost all the schools remained opened for more than 250 days. [Project duration: October 1996-March 1997] {HR/21}

KAPOOR, O.P. 1997. **A study on civil works in DPEP I districts in Haryana.**

Objectives: (i) To assess the quality of civil works undertaken in DPEP I districts in the state, (ii) to compare the quality of construction undertaken by different agencies in the districts, and (iii) to compare the quality of civil works undertaken in DPEP-I districts.

Scope and geographical coverage: Haryana State.

Methodology: This included visits to construction sites, examination of civil work documents, registers etc, examination and lab-testing of material used, discussion with VCC members, teachers, engineers and supervisors.

Major findings: (1) The state adopted all the three procurement procedures namely national competitive bidding (NCB), community participation and forced account. (2) Construction of toilets, boundary walls, single classrooms and boring of hand-pumps were assigned to VCCs. (3) CRC buildings *i.e.* cluster rooms, additional two classrooms in schools were constructed through forced account under Panchayati Raj engineering department (PRED). (4) BRC buildings, new school buildings, additional three rooms were constructed through NCB. (5) The study provides information on each site visited and thereby allows a useful comparison between the three systems. (6) Maintenance of site registers and records had been poor across all procurement systems, though VCC works fared a little better. (7) Works conducted by PRED under forced account system appeared, by and large, to be poorer in quality than works by private contractors and even through community participation. (8) In PRED works, there was no: (a) clear identification of list of PRED engineers and their site of works, (b) regular system of internal reporting to the district project office, (c) regular maintenance of site records & other documents and (d) clear focus on common and standard lapses in construction quality. (9) System of NCB appeared to have worked reasonably well in the process of actual construction though it needed regular supervision to ensure quality of construction. (10) Community construction, appears, by and large, to have fulfilled expectations, though in many cases there were significant and standard lapses. Quality of supervision in some cases was inadequate. Site records with the exception of construction manual were mostly not available at the sites. In many cases there were standard deviation from the given specification even though engineers visited the site twice or more in a week. (11) VCCs needed additional support and technical guidance to ensure that they did not falter in any case. [Project duration: April-December 1997] {HR/22}

SWACH. 1997. **Need assessment study of disabled children to study the extent of disability in pre-primary and primary school children in Kaithal district.** Haryana: Survival Women and Children Foundation (SWACH), Panchkula.

Objectives: (i) To identify handicapped children in rural areas, (ii) to evaluate the perception and attitude of parents and opinion leaders towards handicapped children, (iii) to assess the availability of services (including education) and their utilisation by the target group, (iv) to assess the establishment of linkages and networks between identified agencies and personnel at different levels, (v) to determine the needs of handicapped children regarding their rehabilitation and education in the community, (vi) to validate simple indicators for use by teachers for diagnosing handicapped children at community level, (vii) to assess the training needs of teachers to enable them to effectively participate in the programme, (viii) to make a formal assessment of identified disabled children by a team of experts, and (ix) to identify the training needs and potentials of ICDS and health workers in identification of handicapped children.

Scope and geographical coverage: Kaithal block in Kaithal District.

Methodology: Following a survey in the block, 10 scattered villages, five with population more than 1,000 and five with less than 1,000 and having primary/middle/high schools were selected in consultation with ADC Kaithal. Key informants in each village including teachers, *anganwari* workers, ANMs village *panchs & sarpanch*, RMPs, village *chowkidar*, village *lambardar*, *anganwari* helpers, politicians and social workers were interviewed in order to estimate the prevalence of handicapped children (up to 11 years of age) in rural areas. Schedules and questionnaires for key informants' interview were developed and field-tested prior to the survey. Validation survey was conducted in two of the three villages, one each with population less and more than 1,000 by medical officers and senior field supervisory officers to compare and validate information obtained from key informants with a view to assess the severity of handicap for determining the feasibility of integrating such children in the existing educational system. Focussed group discussions with teachers, opinion leaders, AWWs, parents, *panchs* etc. in order to identify the training needs and support services. Finally, meetings & discussions with government, non-government agencies working for handicapped children including District Red Cross Society, Lions Club, social welfare department, Bharat Vikas Parishad, Nehru Yuvak Kendras, medical practitioners with a view to estimate prevalence of handicapped children in rural areas and the availability and utilisation of services by handicapped children.

Major findings: (1) Prevalence of handicapped children ranged between 1.22% to 0.26% with average of 0.52% in these villages. (2) Number of handicapped and handicapped children (0-11 years) were found to be approximately in the ratio of 1:1. (3) Teachers, *anganwari* workers were the key informants of handicapped children in rural areas. (4) Prevalence of polio cases was maximum among all handicapped in villages. (5) Almost all the key informants reported more number of clearly visible handicaps than not-so-clearly visible handicaps. (6) Less number of not-so-clearly visible handicaps such as deaf, dumb were identified mainly because of their less prevalence than because of less reportage of these handicaps. (7) Most of the people had the picture of a polio-affected child in their minds while mentioning a handicapped child. (8) Most of the informants missed mental retardation and behavioural problems while listing handicaps. (9) Most of the people interviewed had an attitude of pity, sympathy and considerateness towards handicapped children. (10) About 90% and above of the parents said that the handicapped children were neither a burden on them or the society, only they needed more attention. (11) District Red Cross Society, social welfare department and some other philanthropic societies were the only agencies known to people which helped disabled children either through scholarships, books, uniforms or other aids & equipment including crèches, wheel-chairs, tri-cycles and clippers etc. (12) School teachers and *anganwari* workers needed to be trained in strategies for integrating disabled children in schools. (13) Severely handicapped children should be sent to special schools. [Project duration: April-December 1997] {HR/23}

CHUTANI, M.C. & LAL, RATTAN. 1998. **A study on identification of training needs of primary school teachers in environmental studies.** *Haryana: DPEP Cell, SCERT, Gurgaon.*

Objectives: (i) To identify the hot-spots in environmental studies (EVS) subject being taught to children in primary schools in Haryana, (ii) to ascertain the availability of audio, visual aids, specially those related to primary classes and assess its usability, (iii) to assess the initiatives being taken by teachers in preparing teaching aids concerning EVS, and (iv) to identify reasons for backwardness & disinterest of children in EVS.

Scope and geographical coverage: Hisar, Sirsa, Jind and Kaithal (DPEP I) districts.

Methodology: The sample of the study comprised 555 JBT teachers, about 130-190 in number, selected randomly from each districts. The sample incorporated 68% teachers from rural areas, 35% female teachers, 19% graduate & post-graduate teachers, 61% teachers with upto 15 years teaching experience. A questionnaire was developed by the investigators to obtain the responses of teachers about difficulties in teaching-learning content in EVS being taught to primary classes. The questionnaire had 3 substantive parts. Part I related to opinion of teachers about the difficulty level of 50 topics relating to EVS syllabus in primary classes, part II related to their opinion on the usability of teaching aids such as maps, atlas, globe etc inside and outside the classroom and in part III, the availability & use of science kits supplied to schools under operation blackboard. The data were analysed using percentages.

Major findings and implications: (1) Difficulty level of the topic *'Bharat aur Sansar'* dealing with natural regions of the world was considered the highest by 68% respondents. (2) Difficulty level of topics ranked at number 2-6 by 55 to 66% of the respondents in order of priority were *Sanyukta Rastra, Globe Aur Nirdesh Sidhanth, Hamara Bharat - Sathi Vistar, Dharatal, Nadiayan Aur Jalvayu.* (3) Topics rated difficult at 7-12 by 46 to 54% of the respondents in order of priority were *Hamara Akash, Bal Aur Vidhyut, Bhartiya Sanskriti Dharohar, Rajya Aur Kendriya Sarkaren, Hamari Prithvi, Hamara Samvidhan.* (4) Other topics in order of difficulty level and judged by 36 to 45% were: *Manav Sharir, Lok Sabha Aur Rajya Sabha, Udyog, Hamari Shashan Pranali, Moolbhoot Adhikar, Jalavayu Aur Mausum, Prithvi Aur Akash, Udyog Dhandhe Aur Parivahan Ke Sadhan & Vyapar.* (5) Only 26% of the teachers reported that they were using maps, very few teachers were making use of globes. (6) Only 12% of the teachers responded that they were using the Atlas. (7) Regarding availability of globe (90%) and preparation of teaching aids in schools, responses were satisfactory. (8) Non-conduct of historical trips, irregular attendance, lack of interest among students, lack of practice, large number of students in classes, subjectivity in evaluation, inadequate training to teachers and non-utilisation of teaching aids were considered, in descending order, reasons for backwardness of students in EVS. (9) 77-88% reported that lack of historical trips, irregular attendance and lack of interest of students were the main reasons for backwardness in learning EVS, while 61-69% teachers stated that lack of practice (revision), large number of students in a class and subjectivity in evaluation were the key reasons. (10) Only 54% reported inadequate training of teachers as a reason for backwardness. (11) 35% of the teachers reported non-utilisation of teaching aids. (12) 62% of the teachers reported that science kit was available in their schools, but was being utilised in the classroom only by 15%. (13) Topics suggested to be included in the training package, in order of priority, were remedial exercises for weak students, organisation of enrichment programmes for brilliant students, techniques of putting oral questions in classroom, use of globe, maps & charts, knowledge of essential teaching aids, pedagogical & teaching techniques and minimum level of learning in EVS. (14) OBS kits be supplied to all schools. Teachers should be encouraged to prepare teaching aids and use them in the classroom. {HR/24}

Yadav, S.K.; Chutani, M.C & Lal, Rattan. 1998. **Teacher policy, training needs and perceived status of teachers in Haryana.** *New Delhi & Haryana: Department of Teacher Education, NCERT & DPEP Cell, SCERT, Gurgaon.*

Objectives: (i) to document and analyse state policy on teacher training, teacher motivation, teacher recruitment policy, recruitment of female teachers and their representation, remuneration of teachers, teachers transfer policy, demand and supply of teachers, pre-service and in-service teacher training etc in Haryana, (ii) to document and analyse infrastructual facilities available at the district level for per-service and in-service training, (iii) to assess the perceptions of teachers about their social, economic and professional status & to identify factors affecting teacher motivation in schools, and (iv) to identify in-service training needs of teachers and suggest guidelines for providing input for teacher training in DPEP in Haryana.

Scope and geographical coverage: Jind and Hisar districts.

Methodology: The districts were purposively selected. One block at the rural level in each district was randomly chosen. One school complex in each block and one in urban areas at district headquarters were selected randomly. Total number of teachers selected in each district were 100. If the number of teachers in the selected school complex was less than 100, then teachers from the adjacent school complex were included. To assess the state policy on teacher training, documents, office orders, procedural guidelines relating to teacher remuneration, transfers, incentives etc were studied. Members of SCERT faculty, DEOs and BEOs were interviewed to collect information on the same. Data on procedure for admission to primary elementary teacher training institutions was documented. In-depth studies of teacher training institutions at the primary, elementary level in selected districts with respect to facilities, admission procedure, curriculum transaction, school experiences and field work was conducted. For realising the last two, a field study was conducted. The tools of data collection included: state policy on teacher training guidelines (SPGT), schedule for SCERT faculty, schedule for district Block Education Officer, training institute information schedule, and teacher schedule. The procedure for data collection involved development of a training manual, recruitment & training of field staff and data scrutiny & management.

Major findings: (1) There was a wide variation between the representation of male and female teachers in the two districts. About one-third of the teachers in Jind district were male whereas it was only one-third in Hisar district. Representation of females was high in Hisar. (2) In the two sampled districts, the percentage of teachers belonging to higher castes was 88. The representation of SC teachers was much less than their population proportion in the two districts. The OBC representation in both the districts was below 10%. (3) Age profile varied among males and females, as well as in rural and urban areas in the two districts. A majority of the males in Jind (65.6%) and Hisar 50%) were 45 years % above while in the case of females, they were between 35-44 years. (4) A majority of teachers (male/female, rural/urban) in the two districts were matriculate, but the percentage of teachers having senior secondary qualification was about 20%. (5) Most of the teachers had undergone JBT training (93-95%), just 1% of untrained teachers were reported in Hisar district. About 55% of the teachers in Jind District had more than 20 years of experience where as in Hisar, about 40% of the teachers had 5-10 years experience.

Implications and action point: 1. Strategies should be developed to increase the representation of female teachers in Jind district. 2. Measures should be taken to upgrade the qualifications of existing teachers at least upto senior secondary level through open schools etc. 3. Measures may be taken to impart training facilities to the insignificant number of untrained teachers, if any. 4. Pre-service teacher education curriculum needed revision since it was considered as unsatisfactory by teachers. 5. Facilities for in-service training are inadequate as about 50% of teachers could not receive in-service training during the last five years. Additional infrastructural facilities could be created at block and cluster levels. The state should evolve an in-service education policy it was not treated as a one-shot affair. Heavy work pressure, irrelevant training, non-availability of requisite material were the reasons attributed by teachers for not using the practices learnt while training. Multi-grade teaching, methods of teaching and use of improvised teaching aids needed attention during in-service training. 6. Teachers posted in rural areas should get their salaries in time. 7. BEOs and DEOs were unable to provide academic guidance to teachers owing to their heavy administrative responsibilities. 8. Transfer policy should be laid down by the state so that it did not stand in the way of better teacher performance. [Project duration: August 1997-March 1998] {HR/25}

MOHAN, NARINDER; SINGLA, R.C. & LAL, RATTAN. 1998. **Learning achievement of children at primary level, a mid-term assessment study in four DPEP districts of Haryana.** *Haryana: DPEP Cell, SCERT, Gurgaon.*

Objectives: (i) To estimate the current achievement levels of class II & V students in mathematics and language (word meaning and reading comprehension), (ii) to assess the progress in achievement from the baseline level/study, (iii) to identify the differences in achievement levels between/among boys and girls, caste categories like SC, OBC and Others, students of rural and urban schools, (iv) to investigate the profile of school and teachers and its impact on enrolment, retention and learning achievement of students, and (v) to examine the background & characteristics of dropouts and their level of achievement.

Scope and geographical coverage: Jind, Hisar, Kaithal and Sirsa (DPEP I) districts.

Methodology: The sample of the study comprised 50 schools of which 40 were from rural and 10 from urban areas. Multi-stage sampling was adopted. Each district was divided into rural and urban units. Four blocks were selected randomly from rural areas in each district. Urban areas, as per 1991 census, were also similarly selected. In each rural block, number of schools selected randomly were in proportion to the total number of schools in that block. The tools of data collection included: achievement test in mathematics and language for class V, reading and numeracy test for class II, reading and numeracy test for dropouts, student present schedule, student dropout schedule, school record schedule and teacher record schedule.

Major findings: (1) Total enrollment in classes I-V was high in Hisar and Sirsa but low in Jind and Kaithal districts. The percentage of gap in boys' and girls' enrollment was less in Hisar, Jind and Sirsa within the categories. However, it was prominent in Kaithal district. (2) Higher percentage of SC students were enrolled in Sirsa (43.27%), followed by Hisar district (42.56%). Percentage of OBC students in Kaithal, Sirsa, Hisar and Jind districts were 24, 24.6, 20.6 and 19.8 respectively. (3) Percentage of SC girls in primary schools in Hisar was higher than boys but was lower in the other three districts. The enrolment of OBC boys and girls were approximately equal in all the three districts. In the General category, girls (27.75%) enrolment outnumbered boys (23.93%) in Jind District, but the trend was reverse in rural schools of the remaining districts. (4) Number of students enrolled in urban schools was more in Sirsa District followed by Hisar. (5) In the case of retention within the SC category, girls attendance (52.37%) was higher than boys (49.68%) in Hisar District but not in the remaining three districts. In Kaithal District, the percentage of boys attendance was higher in comparison to other three districts. (6) In the General category, higher percentage of boys in District Jind and higher percentage of girls in District Sirsa attended schools. (7) The number of dropout students in different classes varied widely. Within SC category percentage of girls who dropped out from schools was more than boys in all the districts except Sirsa. (8) In class II & III, the dropout rate was high for both sexes, but it was maximum in the case of girls. (9) In all the districts, the percentage of male teachers was higher than that of female teachers. This was highest in Kaithal (78.31%) followed by Jind (68.2%). In urban schools, the trend was reverse. In urban schools of Sirsa district there were no male teachers. The range of female teachers in urban areas varied from 64 to 100% indicating that female teachers preferred to serve in urban schools. (10) There were many vacancies for teachers in rural areas but no much in urban areas. [Project duration: June 1997-August 1998] {HR/26}

SANDHIR, S.; LAL, RATTAN & CHAUDHARY, MAMTA. 1998. **Developing status-cum-trend report on research in elementary education in Haryana.** *Haryana: DPEP Cell, SCERT, Gurgaon.*

Objectives: (i) To conduct a critical and disciplined investigation into the researches in elementary education in the state through review and synthesis, (ii) to delineate the gaps for further research in school education, (iii) to facilitate a deeper understanding of existing state of affairs, capacity building and institutionalisation of research process.

Scope and geographical coverage : Haryana State.

Methodology: This included developing abstracts of all research work in elementary education in the state during 1992-96 carried out by the universities, educational and socio-economic research institutions, NGOs and individual experts as sponsored activities. The abstracts were classified under four broad category namely, pedagogy, curriculum, textbooks and other material. The procedure included advertisement through leading English newspapers in the state requesting for research papers, abstracts of research studies etc. These were then listed. An inventory of Colleges, various departments in Universities, NGOs, private research institutions, social science research institutions dealing with elementary education in the state, innovative programmes operative in the area of elementary education in the state, DIETs individual/teacher researchers etc were prepared. Visits to universities, its various departments, colleges of education, NCERT, NIEPA, RIE, Ajmer, DIETs, GETTIs, ETTIs were made by the research associates. Interaction with ERIC in NCERT were also held. Finally the abstracts were categorise into 27 categories.

Major findings and implications: (1) Very few researches had been conducted in elementary education. Most of such researches undertaken were degree-oriented *i.e.* for M. Ed., M. Phil. & Ph. D and were of routine, repetitive & ritualistic nature on common themes, the findings of which were already known. Research on improvement in methodology or classroom practices were rare. (2) Out of the 89 researches 24 were institutional research projects and 65 were degree-oriented dissertations. (3) Kurukshetra University contribution to researches (for earning a degree) on elementary education during this period was the maximum - 34. (4) MD University, Rohtak contributed to 16 studies on elementary education which were done towards earning of degree such as PhD. M. Phil. etc. In addition, it contributed six M. Ed. dissertations through its affiliated colleges. (5) Two affiliated colleges of Kurukshetra University contributed four studies in elementary education during this period. (6) Out of 24 institutional research projects abstracted, 11 were contributed by SCERT, Haryana, six by NCERT, three by Ed.CIL and one by Department of Development and Communication Institute. (7) Researches had no significant role in policy making and vexing problems in education were rarely solved through research findings. However, they lead to a better understanding of the role of research in policy making. Most of the research abstracts were short-term research studies - either degree-oriented or motivated by some monetary benefits, ending up with limited policy implications. (8) There were virtually no longitudinal and long-term research studies. (9) It was difficult to cull out an exact picture of macro-level phenomenon from micro-level findings in the abstracted studies. (10) Most of the studies had been undertaken at individual level. Team work, collaborative studies were few; there was need to build team-work culture and undertake inter-disciplinary and collaborative studies. (11) There seemed to be adhoc undertakers of research activity, solely motivated by degree and or financial gains. (12) Analysis indicates that there was a lack of tendency on the part of researchers to delve deep into an educational issue and plan sequential research on the same with continuing and sustained effort. Temptation to start a research right from the beginning, without picking up the previous thread needed to be avoided because it became difficult to draw significant generalisations from them; at times, they even contain contradictory findings. (13) A mounting demand for more and better education in the state. Adequately-planned research efforts were needed in SCERT, DIETs and at various levels to infuse quality in education. (14) In nearly all the studies, there has been over-dependence on the use of questionnaire for ease in quantification and computing data. Very few studies had used other methods such as observation, case study, contact, analysis, participant observation etc. [Project duration: January-July, 1998] {HR/27}

DUTT, SARLA; SINGH, R.P. & LAL, RATTAN. **A study on teacher education in Haryana: Issues and future projections.** *Haryana: Department of Teacher Education, SCERT, Gurgaon.*

Objectives: (i) To study the growth, development and present status of teacher education in the state, (ii) to study structure, mechanism, management, infrastructual facilities, admission requirements, courses offered and mode of their transaction and issues related to the quality of teacher education in teacher training institutions, (iii) to identify the strengths, weaknesses, problems and competency issues in education, (iv) to identify additional inputs critically needed for improving teacher education programmes in view of emerging scenario in school education, (v) to identify additional inputs critically needed for improving teacher education system, (vi) to mobilise efforts for bridging the gaps identified, and (vii) to assist educational planners and policy makers for future planning and reconstruction of teacher education.

Scope and geographical coverage : Haryana State.

Methodology: The study covered both pre-service and in-service education of pre-primary, primary, elementary, secondary school teachers and teacher educators working in DIETs, GETTIs, ETTIs and Colleges of Education. It also covered special areas of teacher education like physical education, vocational education and integrated education of disabled children. The study identified institutions which provided resource support for development of teacher education. Data was collected from Director(s) of secondary & primary education, Haryana, Departments of Education of respective universities, all colleges of Education in the state and all DIETs, GETTIs, ETTIs in the state. The tools used in the study included questionnaire for status study of teacher training institutions developed by NCTE and interview schedule for experts designed in the SCERT. There were 79 items in the questionnaire both in part I and II covering general aspects, admission, curricular etc. The interview schedule contained some exhaustive and thought-provoking responses from the respondents.

Major findings: (1) There was virtually no facility for pre-primary education in the state except through *anganwaris* under ICDS. (2) There was lack of feedback on pre-school education and consequent training for pre-school teachers. (3) The number of seats available in colleges of education and departments of education in state universities for M. Ed. course were very limited. (4) It seemed that the emphasis in teacher education programmes was mainly on preparation of teachers for primary and secondary education with limited attention to prepare teacher-educators and researchers. (5) Syllabus for B. Ed. & M. Ed. in all the 20 colleges of education affiliated in two different Universities in the state namely Kurukshetra & Maharishi Dayanand University, Rohtak was almost identical. (6) Admission criteria for B. Ed. emphasised on mental ability and general knowledge. Aptitude for teaching, knowledge of the child & subject and interest in the profession did not get weightage. (7) The curriculum at the primary level was identical in all the 13 DIETs, 12 GETTIs and 8 ETTIs in the state. (8) Examining agency in the state for B. Ed. examination was the Directorate of secondary education. (9) Work experience, SUPW activities were an essential part of the syllabi and it had many varieties. However, work experience activities were carried out without trained teacher-educators. 30-60% institutions had social service, paper making, book binding, cooking, gardening, chalk preparation, clay modelling etc as SUPW activities. (10) Strategies like, participatory seminars, group discussions and report presentations were not being practised during demonstration. (11) Candidates who failed in the B. Ed. exam had to appear again in the next year. There was no semester system and the candidate was not promoted to the next class on the condition to reappear in the failed subject. (12) Innovative activities were not carried out in most of the institutions. (13) There were no research facilities at GETTIs and ETTIs levels. (14) Only a few of the faculty members of SCERT, DIETs were involved in conducting research studies. This indicated lack of interest and competence among the academic staff. (15) Relevant material like abstracts of studies completed were not available in the institution. (16) There was no mechanism or platform which could provide an opportunity to disseminate experiences about innovative practices and studies. [Project duration: November 1997-March 1998] {HR/28}

PRABHA, SNEH. 1998. **A comparative study of enrolment and retention in DPEP block and non-DPEP block of Haryana.** *Haryana: DPEP Cell, SCERT, Gurgaon.*

Objectives: (i) To compare the rate of enrolment and retention of DPEP blocks *i.e.* Hisar II with that of non-DPEP block *i.e.* Rohtak I, (ii) to ascertain whether implementation of DPEP had made any significant difference in the area of enrolment and retention, (iii) to see as to what DPEP's goal of reducing differences in enrolment and retention among gender and social disadvantaged groups to less than 5% had been achieved.

Scope and geographical coverage: Rohtak and Hisar districts.

Methodology: One block each in the district was selected; both the blocks were predominantly rural. Data was personally collected from the headquarters of the blocks. Calculation of year-wise increase in children's enrolment in both the blocks from 1992-93 to 1997-98 was done. The growth rate in both the blocks with 1994-95 as the base year (when DPEP was launched) and 1997-98 as the year in which the study was conducted was calculated. To study the impact of DPEP in Hisar II block, calculation of growth rate before (with 1992-93 as the base year & 1994-95 as the terminal year) and after (1994-95 as the base year & 1997-98 as the terminal year) was calculated. The Cohort method was used for comparing the retention rates in DPEP and non-DPEP blocks. Calculation of crude retention rates with Cohort (1993-94) for primary classes as the base year was done. Calculation of crude retention rate from 100 was also done. Personal interviews of teachers, CRCs, BRCs, school supervisory officers & other concerned officers and parents was carried out.

Major findings: (1) The rates of enrolment and retention of the DPEP block were higher than the non-DPEP block. (2) DPEP had made a significant difference in enrollment and retention in the Hisar II block. The rates of enrolment and retention in DPEP period were higher than that of pre-DPEP period. (3) The enrolment of girls as compared to boys in DPEP block was much higher. (4) The enrolment of SC category students had considerably increased in the DPEP block. (5) The retention rate of boys in both DPEP and non-DPEP blocks was higher compared to girls. (6) The difference of enrolment between boys and girls in DPEP block was more than 5%. The target of reducing it further was yet to be achieved. (7) In non-DPEP block, the rate of enrolment of girls was lower than that of the DPEP block. (8) The growth rates of enrolment and retention of SC students overall and SC girls of the DPEP block was higher compared to non-DPEP blocks. However, the decrease was comparatively less in DPEP block compared to non-DPEP block. This was true for the SC category as well. (9) Gender-based disparities in DPEP block in terms of enrolment were significant since the rate of enrolment were insignificant since the rates of enrolment of girls were higher compared to boys in both the blocks. [Project duration: January-July 1998] {HR/29}

DANG, HARI. 1998. **External evaluation of on-going training programme for improving competencies of primary school teachers in the three Haryana districts of Bhiwani, Gurgaon and Mahindergarh.** *Haryana: Society for Technology and Action for Sustainable Development.*

Objectives: (i) To ascertain the effectiveness of the training programme of primary school teachers organised under *Tarang* - 1 and its impact on teachers, (ii) to assess the pre-programme competencies and perceptions of primary teachers, (iii) to gauge the quality and quantity of resources available during the training, (iv) to assess the availability and usability of instructional material, teaching aids, teaching methodology, camp facility and management support during training, (v) to evaluate the impact and competency improvement in knowledge, motivation and teaching ability in EVS as a result of training to the primary teachers, (vi) to develop RD tools, educational research instruments as well as the entire programme for future planning and improvements in the training process and the instructional package on the basis of feedback received.

Scope and geographical coverage:

Methodology: The study was based on simple tools like RS1 (rating scale 1 with 24 items for assessing the impact of a 10-day motivation programme given to primary school teachers through Tarang, a training package for classes III-V), RS2 (for assessing the availability & usability of instructional material, teaching aids, teaching methodology, drinking water & toilet facility, loading & boarding arrangement etc) and more sophisticated questionnaires, schedules etc. The methodology included: Evaluation of 34 centres by 68 evaluators, two for each centre, observation of modular training in action and the study of norms & guidelines evolved for the training, guiding observers through seminar and experts including head-masters and principals to use RS1 & RS2, refining & further evolving questionnaires, schedules and observation proformas administered for collection of statistical data, analysis of the final report, hiring of competent field researchers, assessors and evaluators for duration of the programme for administering educational research tools such as proformas, RSI, RS2 observation schedules, questionnaires on knowledge, behavioural attitude and statistically quantifiable enhancement profile, conducting two-day workshop for honing skills of such researchers, assessors & evaluators for handling the process of obtaining the objectives, factual information and inputs, reviewing training packages and modular programme based on authentication through ground thrusting with process of observation proforma and schedule development, arranging of more effective interviews before and after training programme at some residential centres for full duration, observation with focus on observing the use of instructional inputs such as creative problem solving, play-way methods of teaching, use of new teaching methods & locally-developed cheaper teaching aids, differential level of teaching within the same classroom for varying levels of student ability, using local resources & examples, devising of following schedules for collection of data: (a) preliminary proforma for assessment and evaluation, (b) participant's reaction schedule, (c) observation schedule for primary teachers training centres, and (d) interview schedule for RPs, organising focus group discussion, examining *Tarang* and the process of its development for effectiveness of the instructional material and training package development for competency enhancement programme, devising of education research instruments RSI & RS2 and more innovative tools like observation proforma, questionnaire and schedules as referred to above used for actual primary data collection and some for validation, observing day-long actual training process in 40 training camps in three districts along with application of new methods, use of locally-developed teaching aids, assisting trainers before and after the training programme, interacting with them at the end of the day, interviewing 40 master-trainers, one at each centre, preferably female and requiring him/her to rate RS1 assessing impact the motivation programme & RS2; interviewing three trainees at each camp (including one female) and requiring them to rate RSI and interviewing and observing the course co-ordinator at each camp and requesting him to rate RS2.

Major findings: (1) The building and infrastructure were generally not optimal and did not provide for residential facility. (2) Half the teachers felt that the seminar room was not suitable and there was need for a separate room for group discussions. (3) Furniture was inadequate for the teachers in the seminar room. Being seated on the floor was not comfortable. (4) The black-board, chalk facility was not always adequately available. (5) Toilet facility was not adequate and water facility was also not always available. Separate toilets for females were generally provided. (6) The learning material was not supplied to teachers before the training but, as most teachers said, on last day of training programme. (7) While educational audio-visual aids like overhead projector, television and video were occasionally available at the centres, they were hardly-ever used during training programmes. (8) Only two-third of the teachers spoke of having clarity about objectives of the course. (9) The objectives of the course met the training needs to a large extent. (10) Teachers found the course content fairly comprehensible. (11) Most of the teachers stated that training modules were relevant and need-based. (12) Transactional approach: While pedagogy used direct lecture method, as the programme progressed, lecture-cum-discussion and demonstration, with field study, guided self-study and assignments were increasingly used. (13) Most teachers found the transactional approach was well used. (14) There were appropriate master-trainers; while some were retired educational personnel, only a very rare few were inappropriate or unemployed. All the resource persons had received training at SCERT, Gurgaon before providing training at these centres. (15) Most of the teachers though satisfied with management of the course, suggested changes in time-table and venue. (16) Teachers benefitted in the area of general awareness, content enrichment, and methodology of teaching on attending the programme. [Project duration: January-July 1998] {HR/30}

IDC. 1998. **Impact of training-cum-orientation programme on learning outcomes of studies in mathematics in primary school stage in Haryana.** *Haryana: Institute for Development and Communication (IDC), Chandigarh.*

Objectives: (i) To develop achievement tests centering around the hard spots in mathematics for summittive evaluation of pupils from classes II-V, (ii) to match the content of teacher training package, the MLL, the textual material and other instructional material used by teachers in classroom situations with the test items, (iii) to assess teaching-learning process in actual classroom situation and in the context of training inputs, and (iv) to validate the in-built mechanisms and identifying learners with special needs including gender sensitive-orientations and for suggesting remedial measured, as and when needed.

Scope and geographical coverage: Sirsa, Jind, Kaithal and Hisar Districts.

Methodology: Tests were developed, centring around hard spots in mathematics through workshop mode and were matched with hard spots in mathematics, MLL, textual material and contents of teacher training packages. Field surveys were conducted and achievement tests in three schools each in Sirsa, Jind and Kaithal districts and six schools in Hisar district selected randomly from blocks to be evaluated were administered for efficiency of training. Tests on 1,839 primary school teachers were also administered. 15 teachings in classrooms were observed to assess the use of indigenously developed TLM, teaching aids, use of mathematics kit, initiative taken by the teachers to make teaching activity-oriented, identifying weak students in the class and adjusting teaching according to their needs. 40 teachers, 10 members of the local community and 8 officers at the cluster/block level were interviewed. Achievement levels of students in terms of their performance in different districts by grade, gender and areas was ascertained. For determining number, percentage of students for mathematical concept categories were arranged into four levels: (a) 80% and above, (b) 50% and above but less than 80%, (c) between 33% and less than 50%, and (d) less than 33%.

Major findings: (1) The overall performance of students in the total sample corresponding to class II-level concept category was found to be far from satisfactory. (2) For concept category of four fundamental rules, performance level of pupils, both boys and girls in urban and rural setting matched with the lowest category (less than 33%) in majority of the cases. (3) Performance levels of class II students were satisfactory on concept category of four fundamental rules for boys and girls equally both in rural and urban settings. Their achievement, however, was rather low on place value, number system and geometric relations. (4) Class III performance level of students both urban, rural, boys and girls on concept categories revealed that pupils were placed reasonably satisfactory on four fundamental rules, place value, number system, fraction, percentages but their performance levels were low on fractions, percentages; HCF, LCM and geometric relations. (5) Performance levels of class IV students both boys and girls in urban and rural areas was not satisfactory in respect of geometric relations, fractions, percentages, HCF & LCM though they were relatively better placed on place value, number system and four fundamental rules. Their performance level on fundamental rules, place values and number system was reasonably satisfactory. (6) Achievement level of class V students was extremely poor both in rural and urban areas. Their performance was low in the concept category of fractions, percentages, geometric relations and even on four fundamental rules. Their performance, however, was relatively better on place value, number system, HCF and LCM. (7) Teaching by-and-large in the classroom was of routine type without significant impact of training on teacher's performance and their handling of classes. Mathematical kits and other innovative techniques were not being used by the teachers in the class room. Training, however, motivated them to prepare low-cost teaching aids. Teaching perceptions about the training was not the same as during training session. (8) Teachers were highly critical of inadequate facilities in schools which they claimed inhibited their initiative in employing innovative practices. (9) Community members, cluster & local-level officials felt that school climate had changed for the better with improved attendance of the children and their enhanced interest in studies. (10) Achievement levels of students in all clusters on all mathematical concepts categories were not satisfactory. (11) Training effects got nearly washed out with the passage of time and students performance could not be claimed to have improved. (12) In Kaithal district, students performance level of class II on mathematical concepts on four fundamental rules was slightly better than in other districts. (13) Performance level of boys and girls were equally alike. Further, geographical (urban/rural) and social backgrounds (general/SC/BC) of students were not found to be factors underlying variations in achievements. (14) There was no evidence of carryover effect of training-cum-orientation programmes to the classroom, resulting in tremendous transmission loss from training to actual workplace in classroom situations. [Project duration: May-October, 1998] {HR/31}

KARNATAKA

Clarke, Prema; Madhukar, C. & Bhaskar, S.1998. **A study on observation of the use of new textbooks in Kolar District.** *Karnataka: United Theological College, Bangalore.*

Objectives: (i) To observe and evaluate the use of textbooks by the teacher in the classroom and its relationship to students' MLL competency acquisition, (ii) to assess the extent to which teachers had understood and appropriated the conceptual and methodological underpinnings of MLL and its relationship to students acquisition of competencies, (iii) to assess the classroom experience of girls and SC/ST students, and explore its relationship to their acquisition of MLL competencies and analyse the verbal interaction between girl & SC/ST students and teachers, and (iv) to assess the relationship between variation in the number of standards in one classroom, number of children in each class and their competency acquisition with respect to multi-grade teaching.

Scope and geographical coverage: Gudibanda, Bagyapalli, Bangarapet and Malur taluks in Kolar District.

Methodology: The study is an analysis of Kalike pedagogy with a focus on the appropriation of the pedagogical methodology of MLL (hereafter referred as KMLL) by teachers in the study district. The *taluks* were chosen depending on its remoteness (the first two *taluks*) or proximity (the latter two) to the administrative centre of the district: Kolar town. A total of 234 teachers (including 120 teachers from the near i.e. latter two *taluks*) were randomly chosen and interviewed. Their classroom practices were observed and audio-taped. An achievement test was administered to each class to measure the academic achievement.

Major findings: Interviews with teachers on their perception of KMLL focussed on the following five areas: (1) Teachers' definition of KMLL: Teachers defined it as a pedagogy which accommodated the academic level of the student and as making the population literate through mastering of certain basic competencies. (2) Teacher's perceptions of KMLL during in-service training: Teachers perception was that they were trained in handling different types of students, preparing low-cost teaching aids, teaching through activity-based methods and development of competence among students. (3) Teachers' acceptance of KMLL: Teachers staying in the nearby *taluks* appeared to be much more cautious than their counterparts (staying in the remote *taluks*) in accepting MLL. (4) Teachers' perceived difference of KMLL from traditional forms of pedagogy: Teachers staying in the nearby *taluks* were more recipient in perceiving KMLL as transforming classroom practices. Teachers perceived it as a different method in terms of use of instructional aids, absence of fear among children and classroom activity. (5) Teachers' perceived difficulties in the implementation of KMLL: Teachers perceived infrastructure and administrative support as adequate for the implementation of KMLL. However, they viewed community support as problematic. Their complaints focussed on the status quo maintained by the community, lack of interest, lack of financial support and criticism from the community. Teachers also encountered problems with the method itself including difficulties involved in constant use of teaching aids and limitations of instructing students in a language other than their mother-tongue. The presence of pupils of different standards in classes was perceived as a major obstacle to the implementation of KMLL. Teachers said that they had no problems in instructing *dalit*/tribal and female students. [Project duration: July 1997-March 1998] {KT/01}

JAYALAKSHMI, T.K. 1997. **An evaluative study on MLL-based curriculum in classes I & II of DPEP schools in Karnataka.** *Karnataka: RVEC, Bangalore.*

Objectives: (i) To assess the suitability, readability and comprehensibility of text-cum-workbooks of classes I & II, (ii) to ascertain the extent to which text-cum-workbooks were used and were MLL-based, (iii) to evaluate the MLL-based curriculum concurrently and the user-friendliness of teacher's guides, (iv) to find out the indicators for revision of curriculum & text-cum-workbooks at I & II standard levels, and (v) to study the extent of achievement in MLL through these materials.

Scope and geographical coverage: Belgaum, Kolar, Mandya and Raichur districts.

Methodology: Four *talukas* were randomly selected in each district. From each *taluka*, 10 schools were randomly selected; out of this, four such schools per taluk were chosen by investigators as were willing to co-operate and which provided adequate opportunities for data collection. At least two tribal schools, if available, in each *taluka* were included. The proposed sample comprised of (at least) 40 schools in each district, 4,345 students (including 2,000 girls) and available teachers. However, owing to several practical problems/limitations, the number of teachers and students available in the field was less. A flexibility in the number of schools visited was allowed thereby implying no uniformity in the number of schools covered per district. The data collection took about 4-5 months. The tools used for data collection included: *school infrastructure schedule*-consisting of issues related to class-rooms, teachers, materials, playground and place for activities as well as aspects like teaching staff, enrollment, disabilities among children and category-wise student enrollment; *teacher observation* schedule - consisting of data related to teacher's experience, work-load, number of days required to complete a competency, time-table, their attitude and concerns; *student observation schedule*-seeking information on their social & home background, placement & interaction in the class-room, weak and strong points in terms of achievement and difficulties etc; *interview schedules* - which were informal chats to with teachers, head masters and officials to gather correct information in view of the fact that asking direct questions would fetch positive stereotype answers, and *Cloze test for testing achievement in mathematics and EVS.* Also a cloze test in language for standards I & II was prepared in the first four competencies only; in maths and environmental science, it consisted of 8-10 questions about the competencies covered and reading text. The achievement tests based on general content were administered at the end of December 1997 and covered the syllabus taught up to the end of the previous month. For class II, oral literacy and numerical tests were prepared. The tests were administered by the concerned teachers. The field workers - four in each district - were imparted a 3-day training twice on field observation techniques. The competencies listed, materials prepared (teacher's guide, textbook and workbook), competencies dealing with content and other related factors were observed to be influencing MLL curriculum. The study was conducted in two phases. In the first phase, content analysis and review of textbooks, workbooks and teacher guides of classes I and II by experts & classroom teachers was done. The second phase was a field study to observe the actual transaction of MLL curriculum in different schools in the study districts and to find out the hard spots in the textbooks, workbooks and teacher guides.

Major findings: (1) The MLL-based curriculum had generated lot of awareness regarding individualising instructions. (2) Materials in form of books, charts/kits & teacher guides were found to be relevant and useful both by teachers and students. (3) Students had more than 60% readability of the books. (4) Experts too, like students, felt that the curriculum and treatment in the books were credible and touched upon the essentials/basics of the subjects. (5) Among the three subjects, Kannada books got divided response in the sense that rural & tribal teachers and students were against the Sanskritized 'Kannada' and felt that more of rustic/familiar spoken words (*aadu bhashe*) could have been used. (6) Children also exhibited difficulty in reading and understanding certain words in Kannada both in classes I and II. (7) Teachers felt MLL curriculum would develop their basic competencies in mathematics, if followed. (8) Children faced no difficulty in maths of 1st standard; however, in 2nd standard they required a little more drill work in the conceptualisation of place value, identifying greater/smaller numbers and arranging numbers in ascending & descending orders. (9) The cloze tests revealed that girls had better readability skills in Kannada than boys whereas boys excelled girls in maths. EVS presented no difficulty. (10) Multi-grade teaching was prevalent in standards I & II in all the districts and in most of the schools, as suggested by the field study. Even when the materials didn't lend themselves for multi-grade teaching the integrated workbook-cum-textbook had helped them in teaching. (11) Field observations suggested that the curriculum was sound, relevant and user-friendly though the variations in transacting it were enormous. Lack of training and commitment on part of teachers, lack in understanding the essence of MLL philosophy were found to be powerful factors in hindering the realization of the project. (12) Printing errors, sequencing & use of certain words in the books needed to be reviewed. (13) The forced field analysis indicated positive progress in access, achievement & attendance. The achievement attained was better and showed signs of improving further. [Project duration: February-December 1997] {KT/02}

KASHINATH, H. M. 1997. **Achievement of MLL-competencies by students studying in MLL schools and non-MLL schools of Dharwad District - a comparative study.** *Karnataka: Department of Education, Karnataka University, Dharwad.*

Objectives: To study the achievement in MLL competencies in three core subjects (*viz* maths, EVS and Kannada) by 2nd standard students studying in both MLL and non-MLL schools on the variables of locality and sex, and to compare the achievement in MLL competencies in these subjects of the students, in MLL and non-MLL schools.

Scope and geographical coverage: Dharwad District.

Methodology: The sample for the study comprised 10 MLL primary schools (out of 285 in the district), 10 non-MLL primary schools, situated in the lab area of the DIET, Dharwad including schools from both rural & urban areas and 20 students of class II randomly selected from each school (i.e. a total of 400) with proper representation of boys and girls. The tools used in data collection were MLL document of NCERT, syllabus and textbooks of Kannada, maths & EVS used in the State and summative evaluation test in MLL competencies of the three core subjects. To ensure that the teachers were teaching the subjects in accordance with the monthly plan prepared and supplied to the schools by the DIET, necessary supervision was done by the DIET staff and SIs.

Major findings: (1) No significant difference was observed in the achievement of competencies in Kannada of students studying in MLL and non-MLL schools. (2) A significant difference was found between MLL and non-MLL schools with reference to the achievement of competencies in maths and EVS. [Project duration: June 1985-June 1997] {KT/03}

RAMACHANDRARAO, A. S. 1997. **Construction and validation of MLL competency based battery of tests for first and second standards.** *DIET, Dharwad.*

Objectives: (i) To pool test-items for summative evaluation based on MLL competencies in three core subjects *viz* Kannada, mathematics and EVS of classes I and II, (ii) to construct a battery of tests in subjects and competencies as mentioned above, (iii) to validate the battery of tests so conducted, and (iv) to evaluate the actual learning level of students of classes I & II in relation with MLL and to identify the differentiated areas of achievement.

Scope and geographical coverage: Hubli & Dharwad *talukas* and nearby rural areas.

Methodology: A group of selected teachers from MLL schools under the guidance of experts prepared a certain number of questions, both written and oral, on each competency in the three subjects for classes I and II. Following intensive discussions, five questions in each competency were selected. Experts went through the questions once again and made necessary alternations following which they finally selected five questions for each competency. These questions, both oral and written (with diagrams, wherever necessary), were administered to children in the selected schools (both MLL and non-MLL schools) under the supervision of experts. The number of children tested in each subject in classes I and II were 416 and 373 respectively. These results were tabulated, subjected to statistical analysis to find out difficulty level and item validity values.

Major findings: (1) The reliability coefficients of Kannada tests for classes I and II were was 0.68 and 0.91 respectively; the range of validity coefficient was 0.80-0.82 and 0.952-0.956 respectively. (2) The reliability coefficients of mathematics tests for class I and II students were 0.81 and 0.40 respectively; the range of validity coefficient was 0.88-0.90 and 0.64-0.66 respectively. (3) The reliability coefficients of EVS tests for class I and II students were 0.88 and 0.90 respectively; the range of validity coefficient was 0.88-0.90 and 0.878-0.872 respectively. (4) With regard to establishment of content validity, relevance of tests items, comprehensiveness and administration procedure of the MLL-based competency test, five judges approved of the test and administration procedure. [Project duration: June 1996-March 1997] {KT/04}.

KERALA

MOHAN, NANDA V. 1997. **Baseline assessment study (1996-97).** *Kerala: Consultancy Group for Research and Forecasting (C-GRAF), Department of Future Studies (DFS), University of Kerala, Trivandrum.*

Objectives: (i) To measure the level of learner's achievement at the primary level, especially class II & IV, (ii) to estimate the dropout rates, (iii) to evaluate the functioning of primary schools, and (iv) to understand the teaching procedures in general and to analyse learner's characteristics in terminal class (class IV).

Scope and geographical coverage: Trivandrum, Idukki and Palakkad districts.

Methodology: The sample of the study comprised 127 schools, 518 teachers, 120 head teachers, 2,286 class II students, 3,260 class IV students and 37 dropouts. The sample was selected randomly and included schools from both urban and rural areas. The number of sampled schools was 10% of the total number of schools in the district, subject to the condition that the minimum would be 35 and the maximum number 45 in a district. The tools of data collection included schedules for: school records, students present, student dropouts, teachers and tests for class II & IV students in mathematics and language. The data collected through different schedules was compiled in the Dbase format. Two-key entry mode was employed for data entry so as to ensure the quality of data and make it absolutely error free. The data thus entered was validated by randomly picking 10% of the schedules and comparing them with the hard copy (administrated schedules). The analysis was carried out using SPSS.

Major findings: (1) Boys had a slightly higher rate of enrollment than girls. (2) The dropout rate was more or less same gender-wise, but slightly higher for boys in Trivandrum and Palakkad. However, in Idukki, the girls' dropout rate was double compared to that of boys. Also there were higher number of dropouts from OBC background. (3) Almost all schools had their own buildings. However, a good percentage of schools were working either in temporary sheds or semi-permanent sheds. (4) About one-fourth of the sampled schools lacked essential facilities like drinking water, separate toilet facilities for girls, electricity *etc*. (5) The number of female teachers was double that of male teachers in all the districts. (6) Over 85% of the sampled teachers reported that except for dictionaries and flash cards all other teaching aids were available. (7) Multi-grade teaching situation existed only in Trivandrum and in a small number of schools in Idukki. (8) The tendency to give home-work was evenly distributed in all the districts. (9) The school dropouts were mainly from the rural areas. (10) In Trivandrum, among the dropouts, those repeating the class was higher among girls, while in Idukki and Palakkad, it was mainly confined to boys. (11) Students from rural areas cited parental factors, non-affordability, additional income compulsions etc as reasons for dropping out. (12) A majority of the parents were engaged in low-paid unskilled activities implying that economic factor was one of the main reasons for children dropping out of school. [Project duration: 1996-97] {KE/01}

MOHAN, NANDA V. 1997. **Social assessment study (1996-97).** *Kerala: Consultancy Group for Research and Forecasting (C-GRAF), Department of Future Studies (DFS), University of Kerala, Trivandrum.*

Objectives: (i) To analyse and offer explanations for the problems of girl students and SC/ST children in terms of their enrollment, retention and achievements, (ii) to assess the available evidence on the effectiveness of various schemes in operation for these groups of children, and (iv) to assess the views and perceptions of the community on the constraints in ensuring effective participation of these children and a possible strategy for overcoming the same.

Scope and geographical coverage: Trivandrum, Idukki and Palakkad districts.

Methodology: About 10 focus group discussions (FGDs) were conducted to gather information. The study used the baseline study data in DPEP II districts as well. Community responses on social attitudes to education of weaker sections were elicited to gain an insight into specific factors that affect the access, retention and learner's achievement. The role of cultural factors including the medium being mother tongue in learning was also examined. The study also relied on relevant literature to study the different schemes in operation for the girl child and SC/ST children.

Major findings and implications: (1) It was observed that different programmes formulated for the upliftment of weaker sections were found to be lacking sustainability. A strategic approach on the lines of DPEP was required to enhance the educational standards. (2) DPEP was found to be a highly strategic programme since it helped in improving the quality of primary education owing to which a child became more confident about his/her future. (3) As evident in the FGDs and initially pointed out by the social assessment study, society was becoming more and more conscious of the quality of services like education. (4) Social participation, especially at the grassroots level of targeted beneficiaries *i.e.* weaker sections like SC and ST, could only make programmes like DPEP sustainable. [Project duration: 1996-97] {KE/02}

DAS, N. MOHAN. 1997. **State finance study.** *Kerala.*

Objectives: To assess the state's capacity to sustain the quality of education and to meet the increased financial needs that may arise to provide high quality education at the secondary and university level. The specific objectives of the study were: (i) To provide a complete report on education finance during 1985-86 to 1996-97 budget demands covering trends is State revenue accounts: receipts, expenditure, surplus deficit, interest payments; plan and non-plan expenditure on education disaggregated by level (elementary, secondary and higher) for departments of education and other departments, including department of social welfare, (ii) revenue and capital expenditure on education as a percentage of total revenue and capital expenditure, (iii) plan expenditure (planned and actual) by level of education, (iv) expenditure by level from centrally-sponsored schemes; in case of elementary education, expenditure by individual schemes, (v) primary school expenditure desegregated by item i.e. teachers' salaries, textbooks, equipments, TLM etc, and (vi) number of primary teachers employed by qualification and salary including a short description of each incentive schemes including number of beneficiaries, criteria for selecting beneficiaries, cost of scheme *etc*.

Scope and geographical coverage : State of Kerala.

Methodology: The study used secondary data such as State budget documents, finance accounts of the Accountant General, Economic Review and Reserve Bank of India Bulletin *etc*. In preparing the study report, due consideration was given to suggestions made by the State DPEP. The detailed analysis was made using 1995-96 RE figures.

Major findings: (1) A stable economy was indicated at the end of the project cycle as per the projections of study. The total revenue receipts at the end of the 2002-03 was estimated at Rs 13,070 crore which clearly indicated the strength on receipt side. (2) Certain salient features of the state educational sector were as follows: (a) a declining trend in deficit, (b) additional expenditure on UEE would be less compared to other States since Kerala had already achieved a level of literacy which was far more than other states, (c) effects of DPEP I & II on the quality of education at higher levels could be easily absorbed by making suitable adjustments in different sectors of the plan, (d) there would not be much additional recurring liability on salaries *etc* since employment of additional teachers was not required, and (e) there was an emerging trend of privatisation in the field of education at the higher level with the entry of self-financing courses/institutions. Hence, part of the additional expenditure owing to modernisation in education would be shared.

Implications and action points: 1. The thrust areas would be: (a) maintenance of infrastructure and upgradation of basic facilities. This would involve additional capital investment which could be sustained, (b) revision of syllabus and textbooks, (c) teaching skill upgradation, (d) pedagogical innovations, and (e) community participation. [Project duration: 1996-97] {KE/03}

MOHAN, NANDA V.; PILLAI, SIVADASAN K & CHANGAT, MANOJ. 1997. **Study on utilisation of school grant and teacher grant.** *Kerala: Consultancy Group for Research* and Forecasting (C-GRAF), Department of Future Studies (DFS), University of Kerala, Trivandrum.

Objectives: The specific objective of the study was to assess, qualitatively and quantitatively the nature of utilisation of school grant and teacher grant under DPEP.

Scope and geographical coverage: Kasaragode, Malappuram and Wynad districts.

Methodology: The study was conducted on an experimental group (MLL school) selected from among the special DPEP schools, those covered under intensive in-service teacher training programmes (hereafter referred to as MLL category schools). The control group consisted of an equal number of other selected schools in DPEP district (hereafter termed as NMLL category). To have a sample of 50% of MLL schools from each block of a district, a sample of 10 MLL (out of the 20 MLL schools in each block) were randomly selected and this constituted the experimental group. For the control group an equal number of NMLL schools were from selected from each block. Thus a total of 3,00 (150 MLL and 150 NMLL) from Malappuram, 140 (70 MLL and 70 NMLL) from Kasaragode and 60 (30 MLL and 30 NMLL) from Wyanad were covered. Separate questionnaires were designed and standardised, following the pilot study both for school and teacher grant utilisation studies. The questionnaires covered all the aspects of participatory decentralised planning in school grant utilisation and the qualitative and quantitative aspects for teacher grant utilisation, as per the published DPEP guidelines. NCERT publications *etc*. Closed-end questionnaires were administrated to the heads of all selected schools. Besides this, there was also an opinion survey seeking the written comments and suggestions of the respondents about these grant allotment and utilisation.

Major findings: (1) The study revealed that a majority of the teachers had not received proper guidelines regarding the utilisation of teacher grant. Moreover, the objectives of DPEP in distributing the teacher grant was not comprehended by the teaching community at large. (2) All the teachers expressed that teacher grant could be purposefully utilised only if the supporting textbooks were made available in the re-opening month itself. (3) The grant should be distributed during summer vacation with clear instructions on the utilisation pattern so that teachers could prepare teaching aids during the holidays. Some of the teachers complained that the allotment of 1995-96 was distributed in March '96, during the time of examination. Students, they felt could not benefit by this type of untimely distribution of teacher grant. (4) The grant amount was not enough to prepare teaching aids required for covering the entire syllabus. Teachers felt that the syllabus could not be completed on time if all lessons were to be taught using aids. (5) Workshops should be conducted on preparation of low-cost aids. More training should be given to the teachers for the effective use of aids in the classroom. Many complained about the quality and content of BRC training. (6) A handbook with sufficiently illustrated teaching aids, lesson-wise should be prepared and distributed by DPEP. (7) At least one prototype of the teaching aids should be supplied to schools. (8) In order to avoid misuse of the grant, frequent inspections should be conducted to assess its utilisation pattern. (9) Instead of preparing the aids individually, collective effort should be employed for preparing/improving the teaching aids. (10) Most of the teachers demanded ready-made teaching aids instead of a grant. It was observed that very few teachers prepared teaching aids on their own. A majority of them had either purchased the aids or assigned professionals for preparing the aids. (11) Lady teachers in MLL schools complained that the new method of teaching had increased their workload in schools. They could not find adequate time at home for preparing teaching aids. (11) Teachers found it difficult to maintain bills of the items purchased for preparing aids. {KE/04}

RAMKUMAR, VASANTHA. 1998. **Mid-term assessment survey in the districts under DPEP I, Kerala State**. *Kerala.*

Objectives: (i) To study the differences in enrollment, dropout and learning achievements among gender and social groups, (ii) to make comparisons of the present differences with that of the BAS data, (iii) to study the overall dropout rate and make comparisons with the BAS data, (iv) to measure the levels of achievement of students at the end of class I & class III stages of primary schooling and compare its findings with the measured baseline levels, and (v) to assess the effect of different variables on achievement of students.

Scope and geographical coverage: Kasaragode, Malappuram and Wynad districts.

Methodology: Ten percent of the total number of government-recognised primary schools including primary sections attached to upper primary/secondary/senior-secondary schools having classes I to IV/V were selected in the district, subject to a maximum of 50 schools. The proposal of the study was made at a national workshop organised by DPEP - Core Resource Group at NCERT, New Delhi. The data was collected by field investigators and master-trainers.

Major findings and implications: (1) The minimum norms for physical space and physical facilities in schools had to be fixed, keeping in mind the demands of a changed curriculum. One to one relationship between rooms and classes should include work space, activity areas and storage space. (2) A majority of the teachers possessed just the minimum general and professional qualifications, the standards for which were fixed long ago. There was the need to raise the minimum qualification of teachers and appointment of subject teachers. In-service training would be the main instrument for enhancing their qualifications. (3) The need for capacity-building of teachers in use of teacher aids was felt. This required: (a) preparation and distribution of booklets on the teaching aids, (b) in-service training programmes for teachers to impart them training in the use teaching aids and to build their capacity and confidence, (c) mobile exhibitions with facilities for demonstration of teaching aids and sale of prepared aids should be organised in all schools in each district on a permanent basis, (d) competitions should be organised for teachers at the CRC/BRC/District/State level on preparation of effective teaching aids, and (e) sharing workshops, ideally at the CRC/BRC level should be arranged for interaction among teachers. (4) Community participation should be made more effective; VEC meetings needed to be vitalised. (5) The occupational aspirations of a majority of students were in a narrow range. There is a need for guidance and counselling programmes for school children and parents. (6) The schools and PTAs should come together to organise compensatory remedial programmes after class hours for backward students. [Project duration: 1997-98] {KE/05}

RAMKUMAR, VASANTHA. 1998. **Study on the present status of classroom practices in the districts under DPEP II, Kerala State.** *Kerala.*

Objectives: (i) To identify classroom practices adopted by teachers in select primary schools, (ii) to assess the frequency of occurrence of different practices adopted by teachers in the selected primary schools, and (iii) to compare the findings on classroom practices for the sub-samples classified on the basis of: (a) districts, (b) location of the school (urban-rural), (c) type of management (government/private), and (d) primary classes (classes I - IV).

Scope and geographical coverage: Idukki, Palakkad, Thiruvananthapuram (DPEP II) districts.

Methodology: From each district, 100 schools were selected from the list of schools provided by DPEP office, through stratified random sampling. The criteria for management dimension was also considered in selecting the schools. The survey covered classes I to IV and included all the three subjects taught at the primary school-level. Observation schedule for classroom practices was used to collect the necessary data. Although the school was maintained as the unit for sampling, care was taken to evenly distribute the classes over the four classes and the three subjects. The data were analysed using percentages for items, each districts, locales, and by type of management by standards. The significance of difference between the percentages was statistically tested, using Chi-square for test and likelihood ratios.

Major findings: (1) Primary school teachers possessed the potential in terms of subject competencies and teacher qualities to make classroom teaching an enjoyable learning experience for pupils and to attain the targeted outcomes. (2) Though a limited repertoire of teaching skills, reliance on only traditional methods of teaching aids and disinterest in using teaching aids was observed, yet it indicated a gap between potential and performance. Intrinsic motivation of the individual teacher and building up of required capabilities and empowerment both as a teacher and as an important member of the community had to be the critical input. (3) Primary education needed to be administratively de-linked from upper primary and secondary education. A separate directorate for primary education should be visualised and set up. This suggestion arises from the quantitative expansion in terms of increasing number of pupils, teachers and institutions, and the needs of curriculum development, teaching strategies, teacher training, teacher qualifications & competencies evaluation procedure, administrative requirements and several other aspects that are specific for primary education. [Project duration: 1997-98] {KE/06}

OMCI. 1998. **Report on the training process of training of BRC trainers and training of school teachers (April-May 1997).** Karnataka: OM Consultants (India; OMCI), Bangalore.

Objectives: (i) To examine and evaluate the process involved in the training of trainers and subsequently, the training of teachers at the block level, (b) to critically observe and evaluate the processes and methods adopted during the six-day training of trainers' programme held in April, 1997, and (c) to evaluate the effectiveness of training by observing the processes in the training programmes, held simultaneously at 55 different block-level training centres spread over six districts during April-May in the same year.

Scope and geographical coverage: Idukki, Palakkad, Thiruvananthapuram, Kasaragode, Malappuram and Waynad districts.

Methodology: The sample for the block-level training observation was decided in consultation with the state project director and state resource group members. A process observer attended the training of trainers programme and took note of the behavioural processes and methods utilised in these programmes. For the block-level training programmes, 2/3 modules of process observation in the new DPEP districts of Palakkad, Idukki and Wayand were taken up at the start, middle and end of the programme. Thus, a sample of 6/9 modules was covered.

Major findings: Overall, the training programmes proved to be an outstanding success owing to the following: (1) Careful selection of highly-motivated SRG members. (2) A well-designed programme of orientation to the new methods which served as a sheet anchor for the whole effort. (3) A thorough grinding of BRC trainers in the new methodology. (4) Exhaustive review sessions at the end of each day to make sure that the learning outcomes had been well understood. (5) The tremendous driving force of the SPD through carefully worked out checks and balances to ensure that the programme was given serious attention. (6) Most of the teachers felt that the new method was feasible and they planned to adopt it.

Implications and action points: 1. In the training of trainers programme more emphasis should be given on trainer's skills. 2. Since group discussion was the main instrument of transacting the concept, a thorough grinding on the most effective methods of group working could have been useful. 3. At the block-level more emphasis is needed on efficient time management and devising home tasks (*e.g.* Tirur) could have motivated the teachers better. [Project duration: 1997-98] {KE/07}

MADHYA PRADESH

Gupta, V.P. *et al.* 1997. **Evaluation of alternative schooling project of Rajiv Gandhi Prathmik Shiksha Mission, Bhopal.** *Madhya Pradesh: Department of Science and Education, Regional Institute of Education, Bhopal.*

Objectives: (i) To evaluate learner's achievement *vis-à-vis* the target visualised, (ii) to assess the enrollment and dropout status under the programme, (iii) to assess the level of quality of education provided in alternative schooling, (iv) to provide a feedback in connection with the pedagogical and academic input, (v) to comment on the socio-economic status of the parents of children in the alternative schools (AS), (vi) to evaluate the role of various supervisory functionaries, (vii) to assess the administrative strengths and weakness of the system, (viii) to assess the quality and efficacy of the TLM provided to AS, (ix) to assess the impact of monthly review meetings, (x) to evaluate the monitoring system at different levels, and (xi) to assess community participation in supervision and management of AS.

Scope and geographical coverage: Betul, Dhar, Raisen, Rajgarh, Rewa and Sehore districts.

Methodology: The sample of the study comprised of 37 AS (out of 119 in the six districts during 1995-96) selected randomly, 6 DPO's, 12 supervisors, 72 teachers, 360 parents, 180 SMC & community members and 720 learners. 11 tools were developed for data collection in collaboration with MPSCERT and RIE, Bhopal. The tools were administered by the principal investigator, co-investigator and JPF's by visiting the schools in person.

Major findings and implications: (1) Most of the AS had been functional. (2) Enrollment at each AS had exceeded expectations thereby causing shortage in TLM at each AS. (3) A large number of children were still found to be out of schools. Dropouts in a few schools too were observed. (4) Most of the teachers and supervisors were found to be attending schools regularly. A majority of them had received three-week pre-service training. Most of them desired short duration training in phases. (5) Parents and community members suggested need-based vacations for their children, especially at the time of sowing and harvesting of crops. (6) Monthly meetings of teachers and supervisors had been taking place; however, most of the DPO's could not supply information regarding total enrollment of children, appointment and educational qualifications of teachers and supervisors. (7) Both teachers and supervisors appreciated the mathematics books; however, most of them suggested the re-writing of Hindi books. (8) The average mean score (out of 50 marks) of students in mathematics was found to be 28.45 as compared to 18.69 in Hindi language. (9) Though AS were found to be functioning well on the whole, yet much remained to be done both in quantitative and qualitative terms for achieving the target of UEE. {MP/01}

Dwivedi, R.S. & Sharma, J.P. 1997. **Brief evaluation of alternative schooling programme.** *Madhya Pradesh: SCERT, Bhopal.*

Objectives: (i) To evaluate the achievement levels of students of alternative schools (AS), and (ii) to assess the participation of community in AS.

Scope and geographical coverage: Bilaspur, Raigarh, Rajnandgaon, Sarguja and Shahdol districts.

Methodology: The required data was collected from 37 school randomly selected, 720 teachers, 12 supervisors, 6 DPCs from 12 blocks in the districts. The tools used for data collection were achievement tests, observation schedules, questionnaires and interview schedules.

Major findings and implications: (1) 56% of the AS were being run in the verandah/house of prominent persons in the village, while 11% of them were functioning in the teacher's house. This showed the positive role of the community members. (2) Flexibility of school timings was observed in all the five districts. These were determined by the community as per needs and convenience of all involved. (3) 97% of the teachers had developed teaching aids which were observed to be useful for classroom teaching; teacher-taught interaction was also found to be satisfactory. (4) The seating arrangement pattern of children in 49% of AS was as per learner's & pace norms; however, about 56% of AS arranged the children in a large circle. (5) Questions/problems were asked in easy and simple language, as per the level of children. Teacher's guide for language was also found to be of fairly good quality. (6) Content of language, mathematics and environmental studies (part I) was found to be as per the level of children. (7) Word-cards were of good quality and appeared attractive to children. However, pictures in textbooks should be in multi-colour and sets of cards should be in different colours. Exercises and activities should be incorporated for explaining the concepts of zero. Pictorial and printing errors of textbooks should be corrected and difficult concepts be simplified. (8) In language and EVS subject, the state-level mean score of girls (39.27) was slightly better than that of boys (38.35); also, in mathematics, girls' performance (35.45) was found to be a little higher than that of boys (34.64). The differences in learning achievements, however, were not significant. (9) More than 90% of the SMC/VEC and community members visited the AS in their respective locality and expressed satisfaction with regard to timing, location and teaching process in the schools. They also confirmed that school teachers interacted with them from time to time; also nearly 99% of them were satisfied with the teachers' work. (10) About 75 AS buildings had been constructed by the local community in Rajnandgaon District. (11) Nearly 85% of the parents admitted that their children had developed necessary reading and writing skills. 96% of them felt that their children had developed numerical skills. About 96% of the children displayed satisfactory performance in language and mathematics. (12) About 97% of the teachers were observed to be regular. (13) As high as 99% of the teachers had undergone 21-day intensive-training programme. In addition, 54% of the teachers demanded further training in understanding different concepts like multi-level teaching, planning, recording and evaluation of learners. (14) DIET staff, BEOs and sarpanchs made supervisory visits to the AS from time to time. (15) SMC/VEC and community members suggested construction of permanent school buildings, purchase of sports/games material and provision of scholarships and uniform to children. {MP/02}

Agrawal, B.K. & Saxena, Subodh. 1998. **A comparative study of learning achievement of learners of formal schools and alternative schools in Raisen district**. *Madhya Pradesh: Institute of Advance Studies in Education, Bhopal.*

Objectives: (i) To assess learner's achievement in formal and alternative schools (AS), (ii) to compare the achievements of AS and formal schools, (iii) to compare the achievements in Hindi and numeracy, (iv) to find the relationship between the achievement in Hindi and numeracy of both the groups, and

(v) to find out reasons for the low levels of achievement by AS.

Scope and geographical coverage: Raisen District.

Methodology: The study was conducted on learners of grade III in seven AS and seven formal schools selected randomly.

Major findings: (1) There was a significant gain in learner's achievement in Hindi language and numeracy in AS. (2) There was a gain in learner's achievement in AS compared to that in formal schools. (3) A significant relationship existed between numeracy and environmental studies and between Hindi and environmental studies. {MP/03}

PANDEY, ANURADHA & KHAN, MEHMUD. 1998. **Alternative schools of Chhattarpur district: A critical study.** *Madhya Pradesh: Department of Education, HG University, Sagar.*

Objectives: To inquire into the problems faced by teachers and children in AS.

Scope and geographical coverage: Chattarpur District.

Methodology: Interview schedules and questionnaires were the tools of data collection.

Major findings: (1) Performance of the students in AS was lower than that of their counterparts in formal schools. (2) Chapterisation of books in AS was not proper. (3) AS lacked sufficient TLM. {MP/04}

VASHISTHA, V.C. & PARHI, RAJAM KUMAR. 1998. **Status study of alternative school and suggesting ways and means to improve upon it.** *Institute of Education, Devi Ahilya Vishwavidyalaya, Indore.*

Objectives: (i) To inquire into the history, background and development of AS, (ii) to investigate the problems faced by teachers and students in AS, (iii) to suggest ways and means to solve the problems faced by AS, and (iv) to prepare a final status study report of AS.

Major findings: (1) AS schools applied the play-way, story-telling and activity-method of teaching. (2) Inadequate incentives were being provided to AS teachers by the government. (3) The duration of teacher training was 21 days. (4) Student achievement was not up to the mark. (5) Curriculum was related to day-to-day activities. (6) There was no boarding facility for students. (7) Teachers planned their teaching. (8) Supervision role of teachers was adversely affecting their teaching responsibilities. {MP/05}

KHAN, H.U. & JAIN, D.K. 1998. **An analytical study of academic atmosphere of alternative schools and the academic competency of AS teachers.** *Madhya Pradesh: Institute of Advanced Studies in Education, Bilaspur.*

Objectives: (i) To assess the availability of teachers in AS, (ii) to assess the infrastructural facilities/ physical amenities in AS, (iii) to assess the competency of teachers in AS, and (iv) to assess the level of education in AS.

Scope and geographical coverage: Five blocks of Bilaspur District.

Major findings: (1) Physical facilities available in AS were grossly inadequate. (2) The educational atmosphere was better in AS than in formal schools. (3) Teachers in AS possessed the desired academic qualification. {MP/06}

Objectives: (i) To evaluate the achievement levels of students of alternative schools (AS), and (ii) to assess the participation of community in AS.

Scope and geographical coverage: Bilaspur, Raigarh, Rajnandgaon, Sarguja and Shahdol districts.

Methodology: The required data was collected from 37 school randomly selected, 720 teachers, 12 supervisors, 6 DPCs from 12 blocks in the districts. The tools used for data collection were achievement tests, observation schedules, questionnaires and interview schedules.

Major findings and implications: (1) 56% of the AS were being run in the verandah/house of prominent persons in the village, while 11% of them were functioning in the teacher's house. This showed the positive role of the community members. (2) Flexibility of school timings was observed in all the five districts. These were determined by the community as per needs and convenience of all involved. (3) 97% of the teachers had developed teaching aids which were observed to be useful for classroom teaching; teacher-taught interaction was also found to be satisfactory. (4) The seating arrangement pattern of children in 49% of AS was as per learner's & pace norms; however, about 56% of AS arranged the children in a large circle. (5) Questions/problems were asked in easy and simple language, as per the level of children. Teacher's guide for language was also found to be of fairly good quality. (6) Content of language, mathematics and environmental studies (part I) was found to be as per the level of children. (7) Word-cards were of good quality and appeared attractive to children. However, pictures in textbooks should be in multi-colour and sets of cards should be in different colours. Exercises and activities should be incorporated for explaining the concepts of zero. Pictorial and printing errors of textbooks should be corrected and difficult concepts be simplified. (8) In language and EVS subject, the state-level mean score of girls (39.27) was slightly better than that of boys (38.35); also, in mathematics, girls' performance (35.45) was found to be a little higher than that of boys (34.64). The differences in learning achievements, however, were not significant. (9) More than 90% of the SMC/VEC and community members visited the AS in their respective locality and expressed satisfaction with regard to timing, location and teaching process in the schools. They also confirmed that school teachers interacted with them from time to time; also nearly 99% of them were satisfied with the teachers' work. (10) About 75 AS buildings had been constructed by the local community in Rajnandgaon District. (11) Nearly 85% of the parents admitted that their children had developed necessary reading and writing skills. 96% of them felt that their children had developed numerical skills. About 96% of the children displayed satisfactory performance in language and mathematics. (12) About 97% of the teachers were observed to be regular. (13) As high as 99% of the teachers had undergone 21-day intensive-training programme. In addition, 54% of the teachers demanded further training in understanding different concepts like multi-level teaching, planning, recording and evaluation of learners. (14) DIET staff, BEOs and sarpanchs made supervisory visits to the AS from time to time. (15) SMC/VEC and community members suggested construction of permanent school buildings, purchase of sports/games material and provision of scholarships and uniform to children. {MP/02}

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Objectives: (i) To assess learner's achievement in formal and alternative schools (AS), (ii) to compare the achievements of AS and formal schools, (iii) to compare the achievements in Hindi and numeracy, (iv) to find the relationship between the achievement in Hindi and numeracy of both the groups, and

(v) to find out reasons for the low levels of achievement by AS.

Scope and geographical coverage: Raisen District.

Methodology: The study was conducted on learners of grade III in seven AS and seven formal schools selected randomly.

Major findings: (1) There was a significant gain in learner's achievement in Hindi language and numeracy in AS. (2) There was a gain in learner's achievement in AS compared to that in formal schools. (3) A significant relationship existed between numeracy and environmental studies and between Hindi and environmental studies. {MP/03}

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Objectives: To inquire into the problems faced by teachers and children in AS.

Scope and geographical coverage: Chattarpur District.

Methodology: Interview schedules and questionnaires were the tools of data collection.

Major findings: (1) Performance of the students in AS was lower than that of their counterparts in formal schools. (2) Chapterisation of books in AS was not proper. (3) AS lacked sufficient TLM. {MP/04}

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Major findings: (1) AS schools applied the play-way, story-telling and activity-method of teaching. (2) Inadequate incentives were being provided to AS teachers by the government. (3) The duration of teacher training was 21 days. (4) Student achievement was not up to the mark. (5) Curriculum was related to day-to-day activities. (6) There was no boarding facility for students. (7) Teachers planned their teaching. (8) Supervision role of teachers was adversely affecting their teaching responsibilities. {MP/05}

KHAN, H.U. & JAIN, D.K. 1998. **An analytical study of academic atmosphere of alternative schools and the academic competency of AS teachers.** *Madhya Pradesh: Institute of Advanced Studies in Education, Bilaspur.*

Objectives: (i) To assess the availability of teachers in AS, (ii) to assess the infrastructural facilities/physical amenities in AS, (iii) to assess the competency of teachers in AS, and (iv) to assess the level of education in AS.

Scope and geographical coverage: Five blocks of Bilaspur District.

Major findings: (1) Physical facilities available in AS were grossly inadequate. (2) The educational atmosphere was better in AS than in formal schools. (3) Teachers in AS possessed the desired academic qualification. {MP/06}

GPGC. **A comparative study of learning achievement of learners of formal schools and alternative schools in Nimach block of Mandsour District.** *MP: Government Post-graduate College (GPGC), Ujjain.*

Objectives: (i) To assess learner's achievement in formal and alternative schools (AS), (ii) to compare the achievements of formal and AS, and (iii) to find out the hindrances in learning achievement.

Scope and geographical coverage: Nimach block in Mandsour District

Major findings: (1) The performance of AS teachers was better than their counterparts in formal schools. (2) AS teachers received far less honorarium than the salaries of their counterparts in regular schools. (3) The TLM of AS used simpler language in comparison to formal schools. {MP/07}

NCERT. 1997. **Mid-term evaluation in 19 DPEP districts of MP.** *New Delhi: National Council of Educational Research and Training (NCERT).*

Objectives: (i) To measure the average performance of students' achievement in competency-based achievement tests in language and mathematics at the end of: class I & penultimate class of primary schooling in 1997, (ii) to compare the average performance of students' achievement in the BAS tests administered during the initial survey i.e. in 1994 with their performance in the same test administered in 1997, (iii) to compare the difference in achievement levels in terms of area, gender and social groups each for BAS 1994 and MAS 1997, and (iv) to study the effect of variables like home, school, teacher, classroom practices, incentive schemes etc on students' achievement.

Scope and geographical coverage: Guna, Dhar, Tikamgarh, Raigarh, Chhatarpur, Sehore, Panna, Raisen, Satna, Surguja, Rewa, Bilaspur, Shahdol, Rajgarh, Mandsaur, Rajnandgaon, Ratlam, Betul and Sidhi Districts.

Methodology: The assessment survey was conducted in 19 phase I DPEP districts at the commencement of the academic session.

Major findings: (1) Among the eight districts in the Malwa region, five were better as compared to BAS, 1994. (2) In language, Raisen had the best result. (3) There was an increase in the achievement levels across all the districts compared to BAS, 1994. (4) Mixed results were recorded for class IV students' performance in MAS 1997 compared to BAS 1994. (5) In reading comprehension, Dhar District had a positive performance while in the remaining districts not much change was witnessed. (6) In mathematics, the achievement levels declined in every district, except Raisen, which registered a marginal progress. (7) Among the districts in the Bundelkhand region, the performance of Sidhi was found to be better than that of the other 5 districts. (8) The maximum dropouts found in sampled school in a district were 30. (9) On a comparison between the BAS 1994 and BAS 97, a significant improvement was observed in the achievement level of class I students. (10) In Chhatisgarh region, students' performance in MAS in all the five district was better compared to BAS. (11) In language, Rajnandgaon achieved better results. (12) Overall, there was an increase in the achievement level of pupils in every district. {MP/08}

KHAN, F.S. & PARAK, ASHOK KUMAR. 1998. **A comparative study of learning achievement of learners of formal schools and alternative schools.** *MP: Institute of Advance Studies in Education (IASE), Bhopal.*

Objectives: (i) To assess learner's achievement in formal and alternative schools (AS), (ii) to compare the achievement levels of formal and AS, (iii) to find out the relationship between the achievement levels in Hindi and numeracy in both schools, (iv) to account for the factors for the of low level of achievement of AS.

Scope and geographical coverage: Rajgarh District.

Methodology: The sample of the study comprised 62 learners in five AS and 75 learners in five formal schools selected randomly.

Major findings: (1) There was a significant improvement in learner's achievement in Hindi language and numeracy in AS. (2) Learners in AS schools had better achievement levels than their counterparts in formal schools. (3) A significant relationship existed between Hindi language and environmental studies. {MP/09}

Gupta, Y.P. & Mittal, A.K. 1998. **On-line evaluation of teachers training, 1998.** *Madhya Pradesh: Regional Institute of Education & SCERT, Bhopal.*

Objectives: (i) To assess the quality of the *seekhnaa-sikhaanaa* training programme (TP), (ii) to measure the responses received from the organisers, master-trainers, teachers and *gurujis*, (iii) to analyse the process of the TP, and (iv) to collect feedback on the TP regarding: management of TP, infrastructural facilities, content of TP, organisation of practice sessions, time management, classroom management, teaching & learning processes at individual & group levels, availability & utilisation of training materials, making & use of teaching aids with available resources, problem solving through experimentation & experimental learning and the relationship between competency, activity, concept & subject matter.

Scope and geographical coverage: 34 districts of MP.

Methodology: Three interview schedules were developed for data collection from organisers of the TP, master-trainers, teachers and *gurujis*. A check-list was also developed for observation of the TP. The tools were administered by a team of observers from SCERT, RGPSM, and RIE.

Major findings: (1) The participants, gurujis in particular, displayed a better learning attitude. (2) Teachers and *gurujis* took interest in activities and discussing their experiences. (3) The TP enabled participants to understand the difference between teacher-centered and child-centered learning. (4) Through the TP, teachers understood the utility of activities while teaching primary-level students and the relationship between competency and the activities. (5) The training taught participants to produce a variety of teaching materials in order to make learning more interesting and joyful. {MP/10}

Shrotriya, B.C. & Singh, R.P. 1999. **Baseline evaluation study, 1999.** *Madhya Pradesh: Rajiv Gandhi Prathmik Shiksha Mission, Bhopal.*

Objectives: (i) To assess the academic level of children, (ii) to re-structure the class by putting children together according to their academic level, (iii) to improve the level of scholastic learning of each child, and (iv) to evaluate children in all the three subjects i.e. language, maths and EVS.

Scope and geographical coverage: The study was conducted in all the AS, EGS and NPS of 34 DPEP districts.

Major findings: In each district, specific problems related with the learning levels of children were identified. Based on them, the districts formulated their own training module to address the problems and weak areas identified in the baseline evaluation so as to enable and equip the teachers for teaching effectively and efficiently. The training was closely monitored by the district academic group comprising personnel of DPO, lecturers of DIET & other academically qualified persons and state-level officers. The training programme was analysed on the basis of feedback received from members of DAG, master-trainers, trainees and state-level personnel. On basis of the analysis, some districts conducted follow-up training in specific subjects for a limited number of teachers. Other districts planned to address the specific problems in a phased manner in the monthly cluster meetings. The findings of the study were also shared with district personnel and they were advised to take up appropriate action to strengthen the schools. {MP/11}

MAHARASHTRA

MPSP. 1997. **State finance study, DPEP - II (Maharashtra).** *Maharashrtra: Maharashtra Prathmik Shikshan Parishad (MPSP), Mumbai.*

Objectives: (i) To present a brief profile of the financing pattern for education, particularly primary education, in Maharashtra during the decade: 1985-86 to 1995-96, (ii) to give a brief idea of the financial resources required for universalisation of elementary education (UEE)* in DPEP phase II districts, (iii) to suggest a strategy of convergence for financing of education from Central assistance and other resources with provisions under state programmes, (iv) to ascertain if the public finances of the State are on a sound footing and whether elementary education is receiving an increased share of the State's budget, (v) to determine whether the state is in a position to sustain the extra financial budget in implementing UEE in Beed, Jalna, Gadchiroli and Dhule districts under the DPEP II programme, and (vi) to observe the role implementing agencies such as *zila parishad* and municipal corporation for achieving UEE.

Scope and geographical coverage: Beed, Jalna, Gadchiroli and Dhule districts.

Methodology: For the period of study *i.e.* 1985-86 to 1995-96, the following was undertaken: (a) a study on the budgetary provision for education in Maharashtra, (b) compilation of the figures of students' enrolment, and (c) expenditure with reference to the total budget of primary education, and of education overall. The additional burden incurred following the State government's contribution for the implementation of various programmes under DPEP II was ascertained. The data was collected from annual reports of the education department, annual & five-year plans, dissertations & exercise, district level educational statistics and general statistics regarding women and tribal population, data & other information available with MPSP.

Major findings: (1) Public finances of the State were on a sound footing and the area of elementary education was receiving an increasing share of budget allocation. (2) Considering the above, it seems likely that the state would be able to sustain the DPEP II efforts and could easily accommodate the extra burden occasioned by the programme interventions. (3) Keeping in mind the magnitude of the education project in the State, the quantum of additional burden by way of costs for DPEP II, appears to be a manageable amount for the State government. It should be able to accommodate this amount in the budget at the end of the project period *i.e.* up to the year 2002. (4) The annual recurrent liability of DPEP II in the financial year 2002-2003 would be around 1% of the education budget and the State government could easily accommodate it. (in the purged)*. (5) The study suggests the sustainability of DPEP II and that state finances can cope with the additional burden of 15% share cost during the project period and its full recurrent costs thereafter. [Project duration: 1997] {MH/01}

DHARMADHIKARI, S. & DESHMUKH, AMITA. 1997. **To evaluate infrastructure grants (Rs. 2,000/- a year) to primary schools under DPEP.** *Maharashrtra: Institute of Relevant Research, Pune.*

Objectives: As suggested in the title of the study. An annual grant of Rs. 2000 is given to each primary school for developing infrastructural facilities which is meant to be utilised not just for needs felt by the teachers but primarily for needs befitting the school *viz*. carrying out minor repairs to increase its presentability and working condition, buying moderately-priced utility items like water tanks, cotton mats for seating students *etc*. This grant is to be utilised as per the budget prepared and sanctioned by the VEC every year.

Scope and geographical coverage: Aurangabad, Latur, Nanded, Osmanabad and Parbhani districts.

Methodology: A sample of 362 schools was randomly selected from a total of 6,724 schools in these districts. The district-wise breakup for the above was: Aurangabad (73 out of 1,224 schools), Latur (65 out of 1,202), Nanded (83 out of 1654), Osmanabad (52 out of 975) and Parbhani (89 out of 1,669). Each district was divided into approximately three equal areas and one-third sample was drawn for every area. A pilot study involving senior research scientists of the Institute, was undertaken in 20 schools of Aurangabad District to test and prove the methodology before attempting the main survey. The tools of data collection were actual observations, structured interviews and securing of primary records. The data was compiled and appropriately analysed.

Major findings: (1) The needs of the schools *vis-a-vis* their capability to use the grant meaningfully and effectively differed considerably from school to school. In the initial phase, almost all the schools were able to utilise their grants well. However, after spending nearly Rs. 7,500 in the first three years, it was observed that, while the needs of the smaller schools had been more or less satisfied, much remained to be done for the larger schools. Therefore, the sanction of grants should correspond to the size of the school. The size of a school could be judged either from the number of classrooms or the number of teachers employed there. Further, a simple formula of Rs. 1,000 per classroom, per year was suggested. (2) A precise and simple procedure for the release of grants should be worked out and explained to the headmasters during the field meetings. (3) Painting on the walls was a commonly undertaken activity and observed to be extremely effective in creating an appropriate environment in the classroom. Local painters required dummies from which they could draw pictures on the wall. The existing practice was to reproduce pictures from textbooks on the wall. However, it is suggested that wall paintings should add something more to what was already there in the textbooks. (4) Implementation of the scheme had benefitted more than 90% of the target schools. The expenditure incurred was found to be appropriate for improving the school and its surroundings.

Implications and action points: 1. VECs should be requested to prepare the plan for expenditure before the commencement of the financial year. The plan should be seen and scrutinized by the Beat Officer. 2. There exists the need to introduce a system of cross-checks in order to ascertain the actual expenditure incurred on the purchase of small items such as seating mats, maps, water jugs *etc*. 3. Although it seems too early to judge the impact of the DPEP grants in terms of enrolment, attendance and improved learning, it was observed that it had made the schools' environment a more pleasant one. Hence, it is recommended that the scheme should be continued in all the DPEP districts. [Project duration: November 1996-May 1997] {MH/02}

BORADE, PRATAP *ET AL*. 1997. **Evaluation of civil works under DPEP - I.** *Maharashrtra: Jawaharlal Nehru Engineering College, Aurangabad.*

Objectives: (i) To present a brief profile of the financing pattern for education, particularly primary education, in Maharashtra during the decade: 1985-86 to 1995-96, (ii) to give a brief idea of the financial resources required for universalisation of elementary education (UEE)* in the five DPEP phase I districts, and (iii) to suggest a strategy of convergence for financing of education from Central assistance and other resources with provisions under state programmes.

Scope and geographical coverage: Aurangabad, Parbhani, Nanded, Latur and Osmanabad districts of Marathwada.

Methodology: A sample of 414 primary school sites out of a total of 1,458 (441 two-room schools, 1,017 one-room schools) sites located in 34 blocks of the five districts was selected through random sampling. The work at these sites was in different stages of construction. In addition to above, construction of 750 toilets in school premises and setting up of 800 boring wells near school sites was also included. While assessing the civil construction works, the major consideration was the assessment for total quality, that is, materials used, workmanship and technical supervision. For the study, 11 investigating teams were formed, which included one senior consultant and one investigator. For overall supervision and monitoring of evaluation activities, two teams of senior members of the cell were also formed to make sample visits to sites as and when the need arose. The above teams were appropriately trained to undertake the job.

Major findings: (1) The following work procurement procedure was followed: (a) construction school - community participation, (b) borewells - force account (through GSDA), (c) toilets - community participation, (d) block resource centre - NGO participation, (e) state project office - forced account, and (f) repairs - community participation. (2) Based on the parameter of total quality, the civil works of the schools was categorised in four grades described in the following manner: (a) nearly 14% (*i.e.* 59 school sites) were graded as 'excellent' based on the quality of material & workmanship and well-maintained time-schedule, (b) about 41% (*i.e.* 171 sites) were graded as 'good' based on the quality of material and workmanship. However, there was a delayed progress here, (c) nearly 38% (*i.e.* 159 sites) were graded as 'acceptable' based on the average quality of material and workmanship. Here, the technical supervision was found to be lacking, and (d) About 4% (*i.e.* 15 sites) were graded as 'bad' considering the poor quality of material, bad workmanship, non-skilled workers and lack of supervision. (3) The construction work was delayed in some cases due to such factors as water shortage. (4) The construction of 34 Block Resource Centres (BRCs), was assigned to an NGO called Centre of Science for Villages (CSV), based in Wardha. The cost-effective construction technology of CSV is based on use of locally available materials so as to promote local artisans and labourers with adequate environmental protection. However, at the time of evaluation, all the works were at the foundation level only.

Implications and action points: 1. CSV should expedite the completion of BRCs. [Project duration: April-July, 1997] {MH/03}

FERNANDES, GRACY, LAMBAY, FARIDA & MEHTA, NILOUFER. 1998. **Social assessment study for DPEP - II districts *i.e.* Beed, Jalna, Gadchiroli & Dhule.** *Maharashtra: Nirmala Niketan, Mumbai.*

Objectives: (i) To analyse the problems of primary school children in the age group of 6-12 years, particularly of girls and SC/ST children with respect to their enrolment, retention and learning achievements in the State in general and in the DPEP districts, in particular, (ii) to appraise the effectiveness of the various schemes in operation for the above, (iii) to assess the views and perceptions of the community on the constraints in ensuring effective participation of these children, (iv) discuss possible strategies for overcoming or mitigating the perceived constraints, and (v) to classify the interventional strategies in the following categories: social, economic, infrastructural and institutional.

Scope and geographical coverage: Beed, Jalna, Gadchiroli and Dhule districts.

Methodology: Community responses were elicited from parents and villages through focus group discussions (FGD) on the following: (a) problems and constraints faced in the continuation of schooling of girls and SC, ST children, (b) their expectations from the school system, and (c) schemes in operation for them. For FGD on girl's education, the groups included representatives of parents, community leaders, teachers and other important persons in the area including health workers, *anganwadi* workers or a gram panchayat member. Care was taken to include those belonging to the low socio-economic status. Similarly for FGD in SC & ST populations, the group comprised members belonging to these sections. In every FGD, women were compulsorily included. The size of such groups was between 6-10 persons and at least 15 FGDs were conducted in each district. The literature reviewed for the study included: annual reports of the Education Department; annual and five-year plans; academic dissertations; reports of Social Welfare Department, evaluation studies by DSERT and other institutions/individuals reviewing the schemes in operation for girls and SC, ST children, district-level educational statistics and general statistics on women and tribal population and some other unpublished material.

Major findings and implications: (1) Ashram schools should be set up in tribal areas to lessen the dropout rate. (2) There should be more female teachers. (3) Syllabus should be made more relevant for the girl child. (4) Separate schools, only for girls, should be opened. (5) Non-formal education centres should be set up. (6) More school buildings should be constructed. (7) Provision of drinking water and electricity should be adequate. [Project duration: December 1997-January 1998] {MH/04}

KULKARNI, VIVEK B. *ET AL.* 1999. **Study of migratory patterns in DPEP - II districts of Beed, Dhule and Jalana and design of appropriate alternative schooling system for migratory children.** *Maharashtra: Jnana Probhodhini, Pune.*

Objectives: (i) To identify and review the migratory patterns and the extent of migrations in the districts of Beed, Dhule and Jalana, (ii) to determine the alternative schooling needs of migratory children in the age group of 6-11 years so as to facilitate their retention in the primary education system, (iii) to suggest a basic curriculum design/designs for alternative schooling at the primary level, based on the findings of the research study, (iv) to propose a preliminary cost estimate for the establishment and operation of a typical alternative schooling unit, and (v) To recommend norms for the establishment of such schools and the number required.

Scope and geographical coverage: Beed, Dhule and Jalana districts.

Methodology: The required data was collected from a sample of 56 villages, 459 families and 435 children in these districts. The sample was drawn so as to incorporate coverage of communities, types of migration and gender blocks in each district. Learning achievement tests (LAT) were developed in language, mathematics, reading, writing and conversational skills. The primary survey was conducted through personal visits by 3-5 teams of surveyors. Each team consisted of two surveyors per village, one for administering family questionnaires and the other for conducting LAT. Each member of the team maintained a diary of his daily experiences including discussions and meetings. The questionnaires and prescribed forms for data collection were uniform for all investigators. The study was conducted around the festival time of Dusshera (October 1-10) during which the migration takes place.

Major findings: (1) It was generally observed that younger children in the age group of 6-8 years (*i.e.* in classes I and II) accompany their parents to factories (locally known as Belapur). On their return, these children are retained in the same class. Over-age children in lower classes feel awkward and drop out. (2) Some of the good students who reach the 3rd or 4th standards are generally kept with their relatives and allowed to continue their education. Hence, the major dropout occurs in classes I and II only. In Beed and Jalana, students who stayed back in the villages while their parents migrated, attained slightly better scores (6.68, 5.66) than the non-migratory children who accompanied their parents (6.32, 5.26). In the total sample, this is balanced by Dhule where students whose parents migrate (4.10) perform even worse than migratory students (4.27). The reasons could perhaps be found in the socio-cultural background of the Vanjari, Banjara and tribal communities. (3) Girls performed better than boys in the case of Bhils and others. In Beed district, students whose parents were illiterate, in fact, performed better than those who had literate parents. [Project duration: September 1998-January 1999] {MH/05}

MPSP. 1999. **A report on multi-grade teaching project baseline survey in phase I and phase II districts**. *Maharashtra: Maharashtra Prathmik Shikshan Parishad (MPSP), Mumbai.*

Objectives: (i) To study the overall achievement levels of students in multi-grade teaching project schools of Phase I and Phase II districts, and (ii) to study the achievement levels of the students of class II, III and IV in language and mathematics.

Scope and geographical coverage: Aurangabad, Parbhani, Nanded, Latur, Osmanabad (Phase I), Jalana, Beed, Dhule and Gadchiroli (Phase II) districts.

Methodology: The sample of the study consisted of 450 schools in the above nine districts. Out of a total of 81 blocks in these districts, nine blocks in each district and 50 schools from each block were selected. For evaluation of students' performance, a form devised by MSCERT, Pune was used. Also, MPSP derived 12 forms from the form devised by SCERT, Pune. A workshop was conducted at the State level to impart instruction to Research Assistants & Training Incharges from each district and to complete the above forms. The data collected by the district personnel was consolidated and complied and analysed using percentile method in the workshop.

Major Findings: (1) Overall, Latur, Parbhani and Jalana districts had a good percentage of students in language and mathematics subjects in all the classes. (2) There was a marginal difference in the achievement levels in maths and Marathi of students of class II. However, the students of class III had a better achievement level in maths than in Marathi and vice versa. (3) The achievement levels of grade III students was found to be better in maths than in language. In grade IV, the overall achievement level in Marathi was better than in maths. (4) In all the districts, students of Latur had the best performance in all the subjects. The performance of the students of Parbhani was found to be equally good. Jalana had comparable percentage of pupils in all the classes for both the subjects. It had 79.22% pupils of grade II in mathematics, whereas Latur had 79.84% for the same. For Marathi, the percentage (73.98%) of pupils in grade II in Jalana was comparable with Parbhani. [Project duration: January-April 1999] {MH/06}

MPSP. 1999. **A report of the school efficiency study in DPEP, Maharashtra**. *Maharashtra: Maharashtra Prathmik Shikshan Parishad (MPSP), Mumbai.*

Objectives: To understand the nature and extent of dropout.

Scope and geographical coverage: Aurangabad, Nanded, Latur, Osmanabad (Phase I), Jalana, Dhule and Gadchiroli (Phase II) districts.

Methodology: The data for the study was collected from 1,219 pupils in 40 schools (one school from each block of every district) in the above seven districts. The information was collected in the format designed by Prof. Yash Agarwal of NIEPA through Research Assistants who personally visited the respective districts. The data was compiled at a State-level workshop and computed statistically.

Major findings: (1) As far as the achievement of the target of 80-80% enrolment was concerned, the following was observed: (a) out of the students enrolled in class I for the session 1994-95 it was about 48.72% for Project I districts and about 42% for Project II districts of DPEP, (b) the percentage of girls was higher than that of boys in both the project schools, (c) the percentage of promoted pupils gradually decreased in the higher classes in the project schools. It was highest in grade I, (d) loss of achievement was due to dropouts, repetition and leaving the schools for other reasons, and (e) the project districts had not been able to achieve the target of 80-80% so far. (2) As far as dropout was concerned, the following was observed: (a) Among Project I districts, Latur had highest retention rate; dropout rate here was almost nil. Aurangabad, Osmanabad and Dhule had achieved this target in the year 1996-97 *i.e.* in grade III structure, (b) Osmanabad, Gadchiroli and Jalana had very high dropouts in grade I *viz.* over 11% (perhaps less when compared to the non-project districts). On the whole, however, this was a gradual decrease, (c) the dropout rate had gradually decreased in the higher classes e.g. in Jalana it was 11.51% in grade I whereas it was only 4.61% in grade III. In some cases it had gone down to zero *viz.* Latur, Aurangabad, Osmanabad and Dhule, and (d) dropout rate amongst girls was lower compared to that amongst boys in nearly all the grades of both the project districts barring a few exceptions. (3) With regard to repetition, the following was observed: (a) in general, the repetition rate was higher than the dropout rate with few exceptions e.g. Osmanabad had a lower rate of repetition than dropout in grades I and II, (b) repetition rate had gradually decreased in the upper grades, and (c) on the whole, the repetition rate amongst girls was less than that of boys in each grade of all the districts, barring a few exceptions. Perhaps it could be said that there had been an improvement in schools with regard to dropouts and failures (*i.e.* both witnessed a decrease). However, the desired percentage of pupils making it to grade IV was yet to be achieved. [Project duration: February-April 1999] {MH/07}

ORISSA

CHHURIA, JAGADANANDA & MOHANTY, ARADHANA. 1998. **Effectiveness of interventional strategy for improving enrolment and retention of girl child.** *Orissa: DIET, Bolangir.*

Objectives: (i) To study the effectiveness of an interventional strategy for improving enrolment and retention of the girl child, (ii) to find out the rate of enrolment, causes for non-enrolment and dropout for girls, and (iii) to find out the extent of their dropout and their subsequent engagement.

Scope and geographical coverage: Punintala block of Bolangir district.

Methodology: The tools used include interview schedule for teachers, questionnaires for dropout girls and for their parents, forms to collect data on class-wise enrolment, percentage of attendance and percentage of dropout among girls. The collected data was analysed and interpreted by separately tabulating the responses of dropout girls, their parents and teachers. The required data was collected from a sample of 10 schools (7 experimental and 3 control), 21 teachers, 28 dropout girls and 26 parents of such dropout girls.

Major findings: (1) Designed interventional strategies such as motivational programmes, health check up and activity-based teaching were observed to be remarkably effective. (2) School timings did not suit girl students of rural areas. (3) Teacher's cooperation could be obtained through sincere and regular monitoring. (4) Health check up at regular intervals motivated girls to attend schools.

Implications and action points: 1. Adequate environment-building programmes may be taken up by teachers and VEC members to sensitise parents on enrolling and ensuring regularity in attendance of the girl child. 2. Programmes like health check-ups may be conducted by the local medical authority. For this, teachers and VEC members should take the initiative. 3. Teachers should adopt activity-based teaching to facilitate participatory learning. 4. Inspecting officers like SIs and DIs should ensure proper teaching-learning conditions in schools. [Project duration: June-November, 1998] {OR/01}

PATEL, PRAMOD & DAS, BIDYUT PRAVA. 1999. **Analysis of problems in the enrolment and retention of girls from weaker sections.** *Orissa: DIET, Kalahandi, Bhawanipatna.*

Objectives: (i) To identify the causes for the non-enrolment and dropout of girls belonging to weaker sections in the age group of 6-11 years in primary schools, (ii) to find out their rate of enrolment and the extent of dropout, and (iii) to suggest remedial strategies for the same.

Scope and geographical coverage: Kaniguma *panchayat* in Thuamul Rampur block of Kalahandi district.

Methodology: The tools used for this study were micro-planning survey schedule of DPEP for teachers and VEC members, interview schedules for parents and questionnaires for teachers. School admission & attendance records of students were also used as source of data. Data on enrolment and retention was collected from nine schools of Kaniguma *panchayat*. Five out of the 15 villages of the *panchayat* were selected on the basis of the strength of SC and ST families residing there from which a sample of 70 parents was selected for interviewing. The opinion of 60 teachers in that block was also sought for the study. The data was analysed by computing various percentages.

Major findings: (1) The rate of enrolment went up during the 1998-99 session as compared to 1997-98 owing to DPEP intervention. (2) The dropout rate decreased in 1998-99 in comparison to the previous session. (3) The rate of dropout for girls was found to be more than that of boys. (4) The causes of non-enrolment, dropout and irregular attendance were socio-economic: such as child supplementing the family income, taking care of siblings at home *etc*, psychological: such as lack of motivation, interest, indifference of parents, fear of teachers *etc*, and *educational* as well: *e.g.* study material not being provided by parents/teachers, inconvenient school timings *etc*.

Implications and action points: 1. The government, VEC and teachers of local schools should initiate programmes on a regular basis to increase awareness about education of the girl child in villages dominated by members of the weaker sections. 2. PTA, MTA and VEC should be encouraged to motivate parents for the same. 3. Activity-based learning method may be adopted in the classroom transaction. 4. TLM was found to be most effective in motivating girl students to improve their attendance. 5. Girl students should be encouraged by their teachers to be active and not shy in the classroom. 6. Parents should be encouraged to send their daughters to school. [Project duration: April 1998-January 1999] {OR/02}

BEHERA, GHANASHYAM & MAHAPATRA, DIBAKAR. 1998. **Effectiveness of interventional strategies for improving enrolment and retention of girls.** *Orissa: DIET, Sambalpur.*

Objectives: (i) To conduct a micro-level study to identify the causes for non-enrolment and dropout of girls in the age group of 6-11 years, (ii) to find out the rate of enrolment, extent of dropout and subsequent engagement of girls, and (iii) to ascertain the effectiveness of interventional strategies such as motivational programmes, health check-ups, activity-based learning programmes in improving their enrolment and retention.

Scope and geographical coverage: Dhankauda block in Sambalpur district.

Methodology: The study was conducted in eight primary experimental schools in Sankarma *gram panchayat*, its nearby villages and three controlled primary schools in Godamunda *gram panchayat*. Among the tools used for data collection were three independent questionnaires administered each to dropout girls, their parents and teachers respectively, to understand the reasons of dropout for girls. Attendance data was collected from all the schools in the beginning, middle and end of the study. DPEP tools for micro-planning were used to collect information from the parents of girls. The data were tabulated separately for the two groups of schools, boys & girls, class-wise roll strength and average attendance. The data of dropout of girls and boys was computed in terms of percentage. The mean of the boys and girls were computed and tested for significance of difference.

Major findings: (1) The percentage attendance of both boys and girls increased during the phases of experimentation. (2) Superiority of experimental over control schools was found in terms of enhanced attendance of students. (3) The rate of dropouts in both types of schools declined with increase in the educational level. (4) The dropout rate decreased with every phase (a total of three) of experimentation. (5) Percentage of dropout decreased in upper classes. (6) There was positive impact of motivational drive, health check-ups and activity-based learning programme on reducing the dropout rate and increasing the percentage of attendance of both girls and boys. (7) The attendance of girls gradually improved in upper classes with provision of better motivational inputs.

Implications and action points: 1. Teachers should help in motivating children to attend school. 2. Schools should organise frequent motivational programmes both for children and parents to minimise the rate of dropout and increase enrolment. Health check-ups, immunisation drives *etc* should be launched to motivate children, girls in particular to attend school. 3. The teaching in school should be based on joyful learning situation rather than rote learning. 4. Orientation of teachers is needed on how to motivate children and organise health check-up and care programmes in schools. 5. Teachers should maintain a cordial relationship with local community leaders for organising various activities in schools. 6. Teachers should adopt activity approach in teaching to make children interested in learning. 7. Inspecting officers should ensure activity-based and joyful learning in schools. [Project duration: February-October, 1998] {OR/03}

NAIK, KUNJA BIHARI & PUJARI, MEENAKSHI. 1998. **Problem in improvement of enrolment and retention of schedule caste (SC) children in slum area of Bolangir town.** *Orissa: DIET, Bolangir.*

Objectives: (i) To identify the reasons for non-enrolment and find out the extent of dropout among children in the age group of 6-11 years belonging to the SC community of a slum area, (ii) to ascertain their rate and trend of enrolment, and (iii) to propose an appropriate strategy to improve the environment of education for them.

Scope and geographical coverage: Batrapara, a slum area, in Bolangir town.

Methodology: The study was conducted in two government primary schools situated near the locality which is inhabited by only by the SC community. From these schools a sample of 18 teachers, 6 VEC members, 14 non-enrolled children, 6 dropout children and 16 guardians were separately administered a structured questionnaire. The admission and attendance records of both the schools for two academic years *viz.* 1997-98 and 1996-97 were referred to determine students' regularity in attendance and rate of dropout. Simple statistical methods were used to analyse the data. Percentages of data were calculated and figures were given in various tabular forms and graphs.

Major findings: (1) The causes of non-enrolment of children were: lack of parental consciousness, engagement in domestic chores, poverty, fear of school and physical disability. (2) The causes for their dropout were: lack of parental interest, engagement in domestic chores & sibling care, unsuitable school environment, cruelty of teachers and lack of understanding. Most of the dropouts were found in the higher classes *viz.* IV & V. (3) Increase in enrolment, girls in particular, during the 1997-98 session. (4) No difference in the percentage of attendance between SC and general students in lower classes. However, in higher classes it was lower for SC students. (5) Guardians suggested the following remedial measures: provision of TLM material, supply of mid-day meal (MDM) to children, financial help and vocational training. (6) Teachers recommended the following: interaction with guardians, simplified method of teaching and supply of MDM and TLM material.

Implications and action points: 1. Teachers should adopt the participatory method of learning. 2. Incentives such as provision of books, dress *etc.* should be offered. 3. Different functionaries *viz.* inspecting officers, teachers and VEC members should provide for infrastructure and conduct inspection and monitoring with an integrated approach for development of education in slum areas. [Project duration: May-October, 1998] {OR/04}

Udgata, Binodini & Khan, Ekram Ali. 1998. **Influence of monitoring of academic inputs by DIETs on academic performance of primary school teachers.** *Orissa: DIET, Bolangir.*

Objectives: (i) To assess the awareness of: (a) primary school teachers to the new concepts of education such as MLL, activity-based learning, joyful learning, SOPT training, OB scheme *etc*, (b) faculty members of DIET regarding problems of primary school teachers and facilities available in DIET to monitor and feed inputs, (ii) to assess the influence of monitoring academic inputs and academic performance of teachers in primary schools by DIET, and (iii) to develop guidelines for setting up a coordination committee for the functioning of such academic monitoring programme.

Scope and geographical coverage: Bolangir town.

Methodology: The study was conducted in 10 primary schools (5 experimental and 5 control) having a minimum of five classes and four teachers in each of them. The tools used were: (a) three different questionnaires administered to the teachers. The first related to academic inputs in primary schools while the other two were to ascertain the facilities available in DIETs to implement & monitor programmes and responsiveness of DIET faculty to problems of teachers, (b) an observation schedule to assess the academic performance of teachers, developed by investigators, and (c) an information schedule to assess the different activities performed by primary school teachers within a span of four months. For classroom observation, five-point rating scale was used for both groups of schools and their mean scores compared.

Major findings: (1) Teachers were aware of new concepts of education. (2) Teachers used OB scheme materials, appreciated joyful learning and followed MLL-based teaching. However, the latter was followed with reluctance since they felt that it hampered completion of syllabus on time. (3) Despite the DIET faculty being aware of the problems of primary school teachers, it was felt that facilities available with it were inadequate to solve them. (4) Performance of teachers in urban schools was better than of those in the rural schools.

Implications and action points: 1. Teachers should be oriented to the fact that syllabus could still be completed on time using the MLL-based teaching approach. 2. Provision of infrastructural assistance to DIETs to enable it to solve the problems of teachers. 3. DIET should serve as the monitoring agency in primary school education. [Project duration: April-October, 1998] {OR/05}

Swain, Trilochan & Panda, Debadatta. 1998. **A study of effectiveness of parent-teacher association (PTA) in achieving universalisation of elementary education (UEE) in primary schools.** *Orissa: DIET, Keonjhar.*

Objectives: (i) To study the structure and functioning of existing PTAs, (ii) to suggest necessary steps for their reorganisation, (iii) to study the nature and extent of its involvement in affairs of the reorganised schools relating to UEE, and (iv) to suggest measures for their revitalization in order to make them effective instruments for achieving UEE.

Scope and geographical coverage: Keonjhar district.

Methodology: The study was conducted in 10 schools (5 experimental schools where PTAs had been operating for more than a year and 5 control schools without PTAs) from which a sample of 250 parents and 130 students was drawn. Among the tools used were: (a) one interview schedule, both different, were administered to members of the existing PTAs and headmasters respectively to collect baseline data on the present status and functioning of PTAs, (b) Following the re-activation of PTAs, a school information schedule for headmasters of concerned schools and an interview schedule for PTA members were administered to gather data on their functioning. The above interview and information schedules were developed in a workshop, (c) two tests based on objective-type questions on EVS and mathematics were administered to students of class III to measure their achievements in these subjects after PTAs were activated, and (d) attendance records and the enrolment registers of students served as tools to study the impact of PTAs on their enrolment and regularity of attendance. Baseline data collected from the PTA members and the headmasters of concerned primary schools were tabulated and statistically analysed. The scores of achievement tests of experimental and control schools were compared statistically.

Major findings: (1) Most of the schools did not have PTAs as an agency for school-community interaction and better educational standards. (2) Wherever PTAs existed, they existed formally. (3) Schools with PTAs served their students better and were better managed. (4) Schools with functioning PTAs received far better contributions from the community compared to those where these were non-functional. (5) Parent-teacher relations, enrolment, regularity of attendance and achievement of students were better in schools with functional PTAs.

Implications and action points: 1. Teachers should take initiative for the formation of PTAs to ensure better school-community relationship. 2. VEC members and responsible people in the locality should assist teachers in formation of PTAs. 3. SIs and DIs should encourage and support such efforts of teachers. 4. Necessary guidelines may be issued by the government to facilitate this work. [Project duration: April-December, 1998] {OR/06}

PATTANAIK, ATULYA KUMAR & SAHU, LIPIKA. 1998. **Community participation in the functioning of the primary school.** *Orissa: DIET, Kalahandi, Bhawanipatna.*

Objectives: (i) To conduct a baseline study for ascertaining the nature and extent of community participation in the following areas: enrolment and retention of students, learning achievement of children and teaching competency, regularity, punctuality and dutifulness of teachers, and (ii) to suggest comprehensive strategies for a broad-based and influential community involvement enabling better functioning of primary schools.

Scope and geographical coverage: Junagarh block in Kalahandi district.

Methodology: The study was carried out in 12 primary schools selected randomly from four different circles in the above block. For a representative sample, the further break-up was as follows: two schools each from SC-dominated, ST-dominated, high literacy and low literacy areas respectively, and four from the general category. The required data was collected through questionnaires administered on 40 primary school teachers and interview schedules for VEC, PTA and PRA members. The data was tabulated and various percentages computed.

Major findings: (1) Nearly 62 per cent of the VEC members were aware of their powers, duties and responsibilities as per the government circular. (2) Orientation/training of teachers' on community participation improved their involvement and interaction with the community. (3) Involvement of VEC, PTA, PRA members significantly enhanced the attendance and enrolment of primary school children. (4) Involvement of VEC, PTA, PRA members in the affairs of school management led to the regularity, punctuality and dutifulness on part of teachers. (5) Teachers' participation in local cultural functions led to better community relations.

Implications and action points: 1. Strengthening of VECs (they should play an active role in promoting primary education in the locality.) 2. Being the member secretary of the VEC, the headmaster should conduct the meetings of VEC, PTA and PRA members at regular intervals; the latter two should try to address problems relating to development of infrastructure and facilities such as construction of building, supply of TLMs in schools in these meetings. 3. VEC, PTA, PRA members should mobilise the services of the local unemployed youths in the functioning of schools. [Project duration: December 1997-July 1998] {OR/07}

RATH, RAM CHANDRA & PUJAPANDA, BALABHADRA. 1999. **Developing a strategy for teaching language to tribal children of class - I and study of the effectiveness of the strategy.** *Orissa: DIET, Kalahandi, Bhawanipatna.*

Objectives: (i) To develop a strategy of language teaching for an easy switch-over from mother-tongue to standard Oriya, (ii) to develop a teachers' handbook to enable them to communicate with newcomers, especially those speaking tribal dialects, (iii) to develop a word-book of tribal language to standard Oriya and *vice versa*, and (iv) to assess the effectiveness of the above strategy.

Scope and geographical coverage: Langigarh block in Kalahandi district.

Methodology: The study was conducted in 10 schools (5 experimental and 5 control) within a radius of 10 kms. A sample of 50 students each, 18 teachers and 50 parents from both types of schools was drawn using purposive sampling method. The following tools were used in the study: (a) teacher's interview schedule to assess their competency in teaching Oriya to tribal children, (b) a bilingual word and primer book, developed by a group of experts and teachers, furnished to teachers of experimental schools for teaching Oriya, (c) rating scale to assess classroom transaction through observation technique by the investigators, (d) structured interview schedules to assess the reaction of teachers, parents and students in order to determine the effectiveness of the strategy, and (e) an achievement test on language for class I students of both the groups. The data were analysed by tabulating the classroom observation data, measured by rating scale. The achievement test scores of both the groups of students were computed separately and mean scores of the results compared. The significance of the difference of mean was ascertained by the 't' test.

Major findings: (1) Intervention of independent variables like support of primer/word book and the use of new teaching approach could effect continuous improvement in the quality of picking up Oriya language by tribal children. (2) Teachers felt more comfortable handling language class of tribal children while assisted by a bi-lingual wordbook and the new teaching method.

Implications and action points: 1. Compilation of bi-lingual tribal wordbooks for non-tribal teachers serving in tribal schools. 2. Adoption of activity approach for teaching language to tribal children. 3. Holding of workshops to compile various folk/tribal songs and stories, tribal songs and stories. 4. Initiatives of the tribal welfare department, DPEP functionaries and SCERT to augment this process. [Project duration: April 1998-January 1999] {OR/08}

RATH, PRASANTA KUMAR; MOHANTY, MOHIT MOHAN & BISWAL, CHAKRADHAR. 1998. **A study on effectiveness of cooperative learning approach (activity based learning situation) in learning mother tongue (Oriya) by class - III students.** *Orissa: DIET, Dhenkanal.*

Objectives: (i) To ascertain the effectiveness of cooperative learning approach (CLA) in learning mother tongue (Oriya) on the achievement of students of class III in comparison to the traditional approach of teaching, and (ii) to develop an activities bank based on CLA.

Scope and geographical coverage: Dhenkanal district.

Methodology: The study was conducted in four (two urban and two rural) out of the 31 schools selected on a random basis. A sample of 120 students of class III (60 students each from the control and experimental schools) were randomly chosen. A two-day training package on CLA which comprised of recitation of stanzas, picture cards, exchange of picture cards, list of new words, recitation with action *etc* developed by the investigator was provided to the teachers. After that they were asked to apply them in their teaching. A post-test on five topics taught by the teachers of both types of schools was conducted and achievement tests developed by the investigator applied thereof. The mean scores and standard deviation of this test were calculated topic-wise and group-wise. The significance of difference between the mean of the two groups was tested.

Major findings: (1) CLA proved to be extremely interesting and motivating in the classroom transaction process. (2) CLA enhanced the minimum levels of learning in Oriya language of class III children.

Implications and action points: 1. Teachers could use the activity-based teaching strategy in language, in other classes as well. 2. Teachers should develop activity-based materials for other subjects as a step towards improving the teaching-learning process. 3. DPEP could organise training programmes for developing learning activity item banks in different subjects for primary classes. 4. DIET and SCERT may take appropriate steps for developing guide books/teacher handbooks to transact the curriculum through CLA. [Project duration: February-November, 1998] {OR/09}

Swain, Trilochan & Giri, Nabakishore. 1998. **The impact of oral preparatory programmes in teaching English as the second language to beginners.** *Orissa: DIET, Keonjhar.*

Objectives: (i) To study the effect of oral preparatory programmes (OPP) on beginners to develop their listening and speaking skills in learning English, (ii) to study the difference in achievement levels of listening and speaking skills between students who had exposure to OPP with those who had not.

Scope and geographical coverage: Sadar block of Keonjhar district.

Methodology: The study was conducted in 10 primary schools (5 experimental where OPP were adopted and 5 control where students were taught with traditional methods and had no exposure to the experimental treatment of OPP in English). A sample of 120 students of class IV and 23 teachers was drawn. Interview schedule for teachers was used to collect baseline data regarding their qualification, training, approach and methods of teaching English to beginners. To test the listening & speaking skills and the knowledge of English of the students, a pre-test was designed at the entry point of class IV. A post-test was then developed for testing them after students of the experimental schools had been given exposure to OPP for a four-month period. All the above tools were prepared by the investigator and were further revised and rechecked in a workshop of DTE and State Council for Educational Research and Training, Bhubaneshwar. The data collected from teachers were tabulated separately and was statistically analysed. Similarly, score achieved by students of the two groups in the pre-test and post-test were compared and mean scores determined to find out the difference in their achievement levels.

Major findings: (1) Most of the teachers of primary classes lacked formal training in teaching English to beginners through OPP. (2) The use of aids like TV, radio, or tape recorder for teaching the subject was not resorted to. (3) Teachers paid scarce attention to improve the listening and speaking competencies of their students. (4) Students from experimental schools had better listening and speaking skills than their counterparts in controlled schools once they were given exposure to OPP.

Implications and action points: 1. Teachers should adopt OPP to improve the listening and speaking skills of their students in English. 2. While teaching English to beginners, teachers should give the same emphasis to listening and speaking skills as they normally give to reading and writing skills. 3. Suitable activities for encouraging a proper participation while teaching English should be undertaken by teachers to develop the listening and speaking skills of beginners. 4. School inspection authorities should insist on adoption of activity-based methods by teachers for furthering the above. [Project duration: April-December, 1998] {OR/10}

MOHANTY, SUSANDHYA & MISHRA, BASANTA KUMAR. 1998. **Analysis of spelling errors in Oriya of class-V children of primary schools in and around Sambalpur town.** *Orissa: DIET, Sambalpur.*

Objectives: (i) To find out the types and extent of spelling errors committed by students of class V, (ii) to assess their level of performance in spelling test as a function of locale (*viz*. rural vs urban) and sex (*i.e.* boys *vs* girls), and (iii) to investigate into the possible causes of committing various types of spelling errors.

Scope and geographical coverage: Sambalpur town.

Methodology: The study was conducted in seven schools in the vicinity of the town. Eighty students, 40 each from rural and urban schools, selected at random formed the sample of this study. Out of each 40 students, half were girls. An interview schedule for teachers and a spelling test in Oriya developed in a workshop of teachers and experts formed the tools for data collection. For analysis, the answer sheets were scored and the number of errors committed then calculated. Tables containing the above details were drawn separately for boys, girls, rural schools and urban schools. Then, the mean and SDs of the error score of all these groups were computed. Applying the ANOVA test, the difference between means and error scores for boys & girls, rural & urban students were also computed and their significance tested. Information collected through interview schedules were analysed to determine relative importance of the possible causes of spelling errors.

Major findings: (1) Different children mis-spelled words differently. (2) Nearly three-fourths (73%) of the words were mis-spelt because of confusion in using *matraa* (vowel symbols), *phala* (consonant symbols), *barna* (alphabet) and *yuktakshar* (compound letters). (3) Sixty eight percent of the students mis-spelt a particular difficult word since it had a combination of matra, *barna* and *yuktakshar*. In fact the word was mis-spelt in six different ways. (4) Most of the students did not know the skill of writing double alphabets. (5) Among the most important causes for spelling errors were: faulty pronunciation, influence of local dialect and illiterate community. Yet another was the lack of proper co-ordination between listening and reading by the child. (6) Some teachers admitted their lack of proficiency in Oriya grammar, spelling and proper pronunciation of some words, which too led to students committing spelling errors. (7) Irrespective of gender, rural students committed more spelling mistakes than urban ones. (8) Teachers accepted the fact that evaluation of students' assignments, dictation and drilling of words were not properly conducted.

Implications and action points: 1. Primary school teachers should be oriented on the correct usage and proper pronunciation of *matra, phala, barna* and *yuktakshar*. 2. Individual attention should be paid to students for drilling of words, dictation, correction of his assignments and analysis of *yuktakshar* on a regular basis, during classroom teaching. 3. Model loud reading, both by the teacher and the students should be emphasised while teaching a language subject. 4. DIET personnel, S.T. school personnel, school SIs, DPEP, EFA and voluntary organisations should undertake remedial programmes/ schedules for the above. [Project duration: April-July, 1998] {OR/11}

BARIK, AKSHAYA KUMAR & MISHRA, NIRANJAN. 1998. **An evaluation of MLL-based language teaching programme in class-I.** *Orissa: DIET, Sambalpur.*

Objectives: (i) To evaluate MLL-based language teaching programme in class I, (ii) to assess the teacher's adoption of this programme during curriculum transactions of language teaching, (iii) to identify the problems faced by teachers while using the above method in teaching language to students of class I.

Scope and geographical coverage: Sambalpur District.

Methodology: The study was conducted in 20 primary schools (10 rural and 10 urban schools), selected randomly and located within a radius of 8 kms of DIET Sambalpur. Twenty head-masters/ -mistresses and 20 teachers teaching language to students of class I in these schools formed the sample. The tools used in the study were: (a) Perception of Language Competencies Scale (PLCS) developed by the investigators, (b) observation of rating of teachers' activities developed by SCERT, Bhubaneshwar, and (c) structured interview schedule for teachers to know the opinion and perception for an evaluation of MLL-based language teaching programme. Head teachers were asked to fill up observation rating scales for the teacher teaching language to class I in his school based on his observation of the latter's performance in five consecutive language teaching classes. Also, the teachers were interviewed. The data was analysed using statistical tools such as arithmetic mean, standard deviation and percentages. These were computed and the possible significance of the rural-urban differences in perception of the teachers and head teachers were probed using the 't' test.

Major findings: (1) Rural and urban teachers did not differ in their perception towards attainment of MLL-based learning language by students of class I. However, with regard to sub-competency (*i.e.* children being able to ask simple questions), they had differences of opinion. (2) In all competencies related to listening, speaking, reading, writing, comprehension of ideas and language use, the students of both rural and urban schools were perceived to have attained the mastery level. (3) In competencies related to self-learning and vocabulary control, the students of urban schools were perceived to have attained mastery whereas rural students had not. (4) Neither the students of rural nor the urban schools were perceived to have attained mastery level in the competency of functional grammar in language. (5) As per the ratings of the heads of schools, the performance of teachers in urban areas were significantly better in the use of support materials and in adopting evaluation strategies than their counterparts in rural schools. (6) The teachers, in general, did not face any problem in using the TLM available in their schools, but most of them could not suggest how to improve on it. (7) Nearly 50% of the teachers in general and 60% of rural teachers, in particular did not have any idea of MLL-based curriculum and most of them were not acquainted with competence-based learning process.

Implications and action points : 1. Orientation programmes for teachers and headmasters should be organised for MLL-based teaching in different subjects in general and for language teaching in particular. 2. Parents and general public interested in teaching-learning process should be made aware of the MLL-based language teaching programme in class I. 3. Curriculum planners, developers and organisers should take necessary steps to implement MLL-based curriculum transaction and attainment of mastery level. 4. Teachers should use TLM for the success of the teaching-learning process and get ideas on improvising support materials, specially the no-cost and low-cost teaching aids. 5. Problems of teachers should be taken care of and necessary help should be provided to them. [Project duration: February-August, 1998] {OR/12}

Patra, Bishnu Charan. 1998. **Impact of special orientation of primary teacher (SOPT) on development of awareness and teaching competence in teachers of primary schools.** *Orissa: DIET, Dhenkanal.*

Objectives: (i) To asses the effectiveness of SOPT in realising its objectives, (ii) to ascertain the modalities of implementation of SOPT in the district of Dhenkanal, (iii) to study the relation between classroom teaching process and quality of training acquired, (iv) to ascertain the degree of academic input received by the teachers after SOPT programme, (v) to identify further training needs of primary school teachers, and (vi) to know the strength and weakness of SOPT programme conducted at the block level.

Scope and geographical coverage: Dhenkanal Sadar, Odapada, Gondia, Hindol blocks and Dhenkanal municipality area in Dhenkanal district.

Methodology: A sample of 100 primary school teachers (50 SOPT-trained and 50 not SOPT-trained), including male and female teachers were selected randomly, keeping in mind the rural and urban variations. Among the tools used for this study were: (a) one questionnaire each, to asses the academic awareness of teachers and their perception of the SOPT programme. These questionnaires were developed by the National Council of Educational Research and Training (NCERT) in 1997 for assessing the impact of SOPT. However, some additions in the former, were made by the investigator, (b) classroom observation schedule for headmasters & and SIs of schools and DIET faculties, and (c) and an interview schedule for headmasters and SIs of schools to know their perception of SOPT programme. The latter two were developed by the investigator. The data was analysed by calculating the mean, standard deviation and 't' values.

Major findings: (1) The use of OB materials, audio-visual aids, field study, distribution of the training package, duration of training and deputation of teachers in time were not found to be satisfactory. (2) Teachers felt that the SOPT programme did not help them in the acquisition of content knowledge, MLL approach in teaching, techniques of continuous comprehensive evaluation, handling of OB materials and teaching in multi-grade class. (3) Performance of the resource persons and course directors was found to be satisfactory in SOPT programmes. (4) Physical amenities were appropriate except for toilet facilities.

Implications and action points: 1. The Directorate of Teacher Education and SCERT may take appropriate steps for: (a) monitoring this programme during training and post-training period, (b) providing training to the field-level supervisory staff and headmasters of primary schools, (c) making arrangements for the use of audio-visual aids, appropriate library facilities for resource persons and trainees at the training centres, (d) increasing the number of days of training *i.e.* from 7 days now to 15 days, and (e) incorporating activity-based teaching module in the instructional package. 2. Principals of the DIETs should ensure that committed persons are appointed as resource persons and they should supervise the on-going training programmes in all earnestness. 3. SIs of schools should ensure the deputation of teachers in time and must supervise classes of teachers in the post-training period. Otherwise too, they should oversee the classes of the SOPT-trained teachers on a regular basis. [Project duration: April 1997-August 1998] {OR/13}

SATAPATHY, BAIJAYANITIMALA. 1998. **An investigation into the academic and adjustment problems faced by the handicapped children in integrated schools.** *Orissa: DIET, Dhenkanal.*

Objectives: (i) To find out the academic problems faced by handicapped children, (ii) to identify the adjustment problems of these children in integrated schools, (iii) to ascertain the perception of the teachers towards handicapped children, (iv) to know the perception of their parents with regard to their adjustment at home, and (v) to compare the academic and adjustment related problems of handicapped children in integrated schools with and without resource teachers.

Scope and geographical coverage: Dhenkanal town.

Methodology: The data for this study was collected from three primary schools in and around the town, 60 handicapped students (30 receiving assistance of at least one resource teacher and 30 without a resource teacher), parents of these children and 36 teachers (including 15 resource teachers) associated with these students. Among the tools used for collecting data included: (a) a questionnaire on academic and adjustment problems faced by handicapped children, for teachers, (b) an interview schedule for parents regarding the interaction of these children at home, and (c) an interview schedule for handicapped children to apprehend their adjustment pattern at school. With the assistance of experts from DIET, TE, SCERT and a local doctor, a proforma was prepared to identify handicapped children not receiving assistance of a resource teacher. The researcher then visited the parents and teachers of these children to collect the data. A workshop each was held in two of the schools in May 1998 to collect views of teachers, parents and the public. The data on the parent's perception of the adjustment problems of their children was analysed using percentage analysis. Responses of the students regarding their academic and adjustment problems were calculated in terms of percentage and the mean difference in the academic and adjustment problems of students was tested for significance.

Major findings: (1) The orthopaedically handicapped students face considerable problems in locomotion that affected their academic performance and created adjustment problems. (2) Performance of handicapped children receiving help from resource teachers was comparatively better than those not receiving such help. (3) As far as academic and adjustment related competencies were concerned, the hearing/visual/speech handicapped children of schools with resource teachers were better rated than the children of the schools without any resource teacher. (4) Handicapped children shared a good relationship with their siblings, as informed by their parents. (5) Orthopaedically handicapped children without a resource teacher performed better than those assisted by a resource teacher. (6) Irrespective of their deformity and sex, handicapped children were found to be regular in school. (7) Both categories of students showed a favourable attitude towards their teachers with the exception of a few students who indicated a negative attitude towards their resource teachers' behaviour. (8) The children were all eager to receive any kind of help which would help them in overcoming the problems faced due to deformity. [Project duration: April 1997-August 1998] {OR/14}

Shukla, Ramakanta & Nayak, Chandrika. 1998. **A study of differences in school readiness of tribal children with and without ICDS background.** *Orissa: DIET, Kalahandi, Bhawanipatna.*

Objectives: (i) To study the school readiness (social, emotional, physical and intellectual aspects of development) of tribal children both with and without ICDS background, and (ii) to compare their school readiness.

Scope and geographical coverage: Bhawanipatna block of Kalahandi district.

Methodology: The data for the study was collected from a sample consisting of 100 children with and 100 children without ICDS background, chosen randomly from nine primary schools attached to the *anganwadi* centres in the block. The tool for data collection was jointly developed by the ECE unit of the Directorate of Teacher Education and SCERT for an evaluation of ICDS programmes. First, the teachers of these schools were oriented for administering the tools to the children during the first two weeks of their admission in class I. Then, different activities for children, keeping in mind their social emotional, physical, linguistic, cognitive, creative and aesthetic development were organised for five months in through games, story-telling, songs *etc*. Following this, the test was administered again and data collected. The mean and the standard deviations of different developmental aspects of children of both categories was computed. The 't' test was applied to ascertain the significance of the mean difference of various developmental aspects between children with and without ICDS background.

Major findings: The tribal children with ICDS background were found to have a much better social, emotional, physical as well as intellectual development than of children without ICDS background.

Implications and action points: 1. DPEP should open pre-schools attached to primary schools. 2. The DIET personnel and DPEP authorities, both at the district and state levels should be involved for conducting seminars at various levels in order to generate awareness among parents and associated people. [Project duration: April-December, 1998] {OR/15}

Rout, Kartikeshwar & Sethy, Mahendranath. 1998. **Development of strategy for motivating tribal girls for schooling and study of its effectiveness.** *Orissa: DIET, Keonjhar.*

Objectives: (i) To identify the cultural and creative activities in which tribal girls take part in their home and at their community centres, (ii) to prepare a motivational package for the schooling of tribal girls which includes activities such as, artistic & cultural work including music, singing, dancing, painting, preparing designs, making toys, models with locally available resources, and (iii) to study the change in their schooling habits as a result of this motivational package.

Scope and geographical coverage: Sadar and Banspal blocks in Keonjhar district.

Methodology: The required data was collected from four schools (two each from two out of the 13 blocks) selected by random sampling, 40 tribal community members, 40 tribal dropout girls, 40 parents of tribal girls and 8 teachers. These two blocks have a high concentration of Bhuyan and Juang tribal communities. The tools developed by the investigator for this study included information sheet to collect the extent of dropout among girls; interview schedules each for tribal community members, tribal girls and the parents; and questionnaires for teachers and motivational package. The data was collected in three phases *viz* identification of the dropout girl, collection of information from them, community members & teachers and interviewing of teachers. The data was analysed using percentage & rank analysis and bar diagrams.

Major findings: (1) Local songs, dances, tribal plays & festivals and collective physical work were the major activities of the tribal communities. (2) Tribal girls in general were found to be active participants in tribal songs and dances. They engaged themselves in preparing different materials for play, drill, toys and models; painting, drawing and similar other programmes in their communities. (3) Organisation of cultural and creative activities in school ensured increase in enrolment, decrease in the dropout rate and regularity in attendance of tribal girls. It also led to an increased participation in different school activities. (5) Organisation of cultural and creative activities in tribal primary schools also raised the achievement level of tribal girls.

Implications and action points: 1. Cultural and creative activity-based teaching approach should be introduced by teachers in all tribal primary schools. 2. The VEC should support and encourage this approach; and PTA should take initiative for its implementation. 5. The DPEP functionaries should provide necessary co-operation to teachers for its smooth adoption in primary school programme. [Project duration: April-November, 1998] {OR/16}

SARANGI, SIBA SHANKAR & GHOSE, ASHIS KUMAR. 1998. **A study of the problems faced by the slum dwellers in the education of their children.** *Orissa: DIET, Sambalpur.*

Objectives: (i) To study the lifestyle of slum dwellers in relation to their social, economic, occupational and educational status, (ii) to diagnose the problems of their ward's participation in schools, (iii) to study the utilisation of educational facilities available to them, and (iv) to suggest remedial measures for these problems.

Scope and geographical coverage: Sambalpur town.

Methodology: Two slums - urban and industrial - were selected randomly from the many in the town. The data was collected from 100 parents, 50 irregular and 60 dropout children in the age group of 5-11 years residing in these slums and 25 teachers of primary schools located nearby. The tools included questionnaires for teachers and interview schedule for the irregular students and the dropouts. The parents of the slum children were interviewed at their houses. The data was analysed computing percentages.

Major findings: (1) The twin problems of poverty and illiteracy among slum dwellers posed the biggest hurdle in educating their children. (2) Though the academic performance of the slum children was comparatively poor, yet they were regular at school and took interest in their studies. (3) Non-availability of study materials particularly during the beginning of academic session, lack of academic assistance beyond school, unsympathetic behaviour of their teachers, fear of heavy home tasks and examinations, poor food & clothing stood in the way of their education. (4) Nearly 47% of the pupils of the slum areas dropped out each year. Out of these, 30% were ready to resume studies, if they were provided with adequate opportunities.

Implications and action points: 1. At all levels, slum areas should be treated at par with other areas as far as providing education is concerned. 2. NGOs, members of community development centres, educated youths *etc.* in association with primary school teachers should visit the slums in the month of May every year and identify children who are eligible to begin formal education. They should request their parents to get them enrolled in nearby schools and assist school teachers for the same. 3. Teachers, including retired ones, should assist these children through free coaching and remedial teaching. 4. Teachers should ensure proper behaviour and non-discrimination towards these children. They should avoid meting out corporal punishment. In fact, scolding in front of classmates and sarcastical remarks should be avoided at all times. 5. Since mathematics and English continue to be the most difficult subjects for these children, teachers should preferably adopt activity-based, joyful learning method. On the other hand, home tasks in these subjects should be minimised or not given at all. 6. Headmasters of these primary schools should activate the VEC members to participate on an active basis in the functioning of the schools. PTAs and MTAs should be strengthened and teachers should try to establish good rapport with the parents to solve the problems relating to education of their children. 7. The government should establish formal or non-formal education centres to bring back the dropouts who want to resume their education. In fact, the need exists to open more non-formal education centres in and around the slums to cover the over-aged learners of both the sexes residing there. 8. Provision of study materials free of cost at the beginning of the academic session each year. [Project duration: April-November, 1998] {OR/17}

MUND, LALIT MOHAN & MOHAPATRA, SHENAPRAVA. 1999. **A study of the effectiveness of the activity approach of teaching in the multilevel context in NFE system.** *Orissa: DIET, Kalahandi.*

Objectives: (i) To select a set of activities developed by DPEP and to develop a set of new activities for effective implementation of activity-based teaching learning programme in NFE centres. (ii) to examine the effectiveness of activity-based teaching in multilevel context in NFE centres. (iii) to study the attitude of NFE facilitators and students towards activity-based teaching.

Scope and geographical coverage: Kesinga and Bhawanipatna in Kalahandi district.

Methodology: The sample consisted of 50 students from NFE centres and NFE facilitators in these two places which are inhabited predominantly by tribals in hilly areas. The experimental group comprised of Boria cluster and the control group of Medinipur cluster (for class I to III) in Kalahandi district. Among the tools used were (a) test to measure the learner's achievement in arithmetic and language (parallel forms in each) for students of class I to III, (b) interview schedule for students to assess their reaction towards activity-approach of teaching, (c) interview schedule for NFE facilitators to assess their reaction towards activity approach of teaching. A pre-test followed by a post-test after six months was conducted in language and arithmetic for both the experimental and control group of students to test their improvement and the effectiveness of activity approach of teaching. A training package developed by DPEP on this new interventional strategy *i.e.* activity approach of teaching was used to train 11 NFE facilitators of experimental area (*i.e.* Kesinga block) and one NFE supervisor during a week-long workshop. The data was analysed using percentage analysis, applying t-test for comparing the two groups.

Major findings: (1) NFE facilitators and learners displayed a favourable attitude towards the activity-approach teaching. (2) A better involvement between the teacher and students in the classroom during the teaching-learning process was facilitated using this approach. (3) As an interventional strategy, the activity approach could lead to better results in the achievement levels of students in language and in arithmetic. (4) There was a marked difference in the level of achievement of the students following the introduction of activity-approach of teaching.

Implications and action points: 1. Activity approach as a method of teaching could be introduced in all NFE centres in order to improve the quality of instruction. 2. This approach may be considered as a suitable approach in multi-grade and multi-level teaching context as well. 3. NFE facilitators should follow activity approach teaching in other subjects as well. [Project duration: April 1998-February 1999] {OR/18}

MISHRA, SACHIDANANDA. 1998. **A study on the effective use of the OB materials and other TLM to adopt joyful and activity-centred learning in mathematics in classes I to III.** *Orissa: DIET, Keonjhar.*

Objectives: (i) To train teachers in the effective use of the OB materials, (ii) to encourage and guide teachers to use the TLM as and where necessary in teaching mathematics to students of class I to III, (iii) to examine the effectiveness of the use of TLM on the achievement of students in mathematics.

Scope and geographical coverage: Sadar block of Keonjhar District.

Methodology: The data was collected from 20 schools (10 experimental and 10 controlled schools chosen on a random basis) involving 480 students and 27 teachers (for training them in the use of TLM and OB kits) selected randomly. The following tools, developed by the investigator in a workshop, were used: (a) a questionnaire for teachers for ascertaining their views on the use of OB materials and TLM, (b) classroom observation schedule for ascertaining the use of OB and other TLM, (c) an interview schedule to record the reactions of students of experimental schools on the new approach of teaching, and (d) students' achievement test to estimate the effectiveness of the use of OB an other TLM. The impact of the use of OB and other TLM in teaching mathematics was assessed by applying 't' test to the sample of experimental and controlled group. Percentage analysis was also made to ascertain the use of OB and other TLM in schools provided with the same.

Major findings: (1) Teachers with better knowledge to utilize TLM were found to have applied it more effectively. (2) The teachers evinced a great deal of motivation and resourcefulness in preparing improved and low cost teaching aids. (3) Mere a supply of TLM to schools without an understanding of its effective use was not of much help in improving the teaching process. (4) Effective utilisation of TLM encouraged students' participation in the teaching learning process much more effectually. (5) There was significant difference in the level of achievement in mathematics by students of the experimental group compared to their counterparts in the control group.

Implications and action points: 1. Workshops, seminars, training programmes *etc.* on the effective use of TLM by teachers should be organised. 2. Teachers should be motivated for giving emphasis on participatory learning through the use of OB kits/ for effective teaching-learning transaction process. 3. All schools may be covered under the OB scheme for effective learning. [Project duration: April-December, 1998] {OR/19}

RANA, AKSHAYA KUMAR & SOREH, RUPACHAND. 1998. **A comparative study of the Oriya language proficiency of tribal children in tribal schools and schools with mixed groups of tribal and non-tribal children.** *Orissa: DIET, Keonjhar.*

Objectives: (i) To assess tribal children's proficiency in Oriya language at entry point, (ii) to find out the factors influencing language development of children in tribal schools as well as of non-tribal children in a mixed group, (iii) to assess the language achievement of tribal children on the competencies of writing, reading, speaking and listening in Oriya in a mixed group, (iv) to find out the differential effects of the method of teaching Oriya on a mixed group and group of only tribal children, and (v) to assess the nature and extent of interaction between tribal and non-tribal children in the mixed group.

Scope and geographical coverage: Keonjhar sadar and Bansapal blocks of Kenojhar District.

Methodology: Eighty four tribal children of class I & III from three tribal schools and 84 students (*i.e.* 168 students in total) from mixed groups in the same classes from another three schools were randomly selected for the study. Among the tools developed and used by the investigator were: (a) a classroom achievement test (oral and short answer-type) to assess the language proficiency of tribal and non-tribal children students of class I, (b) another three separate tests were administered for assessing the proficiency in Oriya of both groups of students of class III. A pre-test and a post-test with a gap of four months during which they were exposed to traditional teaching were administered to both tribal and non-tribal students of class I and III to measure their language proficiency in Oriya. The mean and S.D. of pre-test and post-test marks were computed separately for the tribal and mixed group children of class I and III of each school. The difference in marks of both the test were put to a 't' test to ascertain the level of significance of each group.

Major findings: (1) In both the tests (*i.e.* pre-test and post-test) situations it was observed that the mixed group children performed better than the tribal children in all aspects of Oriya language *viz.* functional grammar, listening comprehension and language expression. (2) Children from the mixed group possessed a better proficiency in language owing to the fact, perhaps, that they possessed an opportunity to interact with children knowing Oriya language at the entry level. In comparison, however, tribal children mixed and interacted with children who spoke only in their tribal dialect.

Implications and action points: 1. Primary schools run by the government and other agencies should enrol children who at least have a functional proficiency in Oriya at the entry level. 2. Instead of encouraging tribal children to study, play and interact with children from a similar background, they should in fact be provided greater opportunities to interact with non-tribal children, who have a better proficiency in Oriya language due to their exposure to the same in their social environment. [Project duration: April-December, 1998] {OR/20}

PADHI, SAILABALA & KHAMARI, LALIT MOHAN. 1998. **A study on the effective use of OB and other teaching-learning materials for adopting joyful and activity-centred learning science in class - III.** *Orissa: DIET, Sambalpur.*

Objectives: (i) To train and encourage teachers in the effective use of OB materials and other TLM, (ii) to examine the usability of materials supplied in schools by the government under the OB scheme, and (iii) to evaluate the effectiveness of TLM approach on the achievement of students in science subject.

Scope and geographical coverage: Sambalpur town.

Methodology: The study was conducted in 10 Oriya-medium experimental primary schools situated in the town and nearby villages within a radius of 8 kilometers. The data for this study was collected from 230 students of class III, randomly selected from these schools which had been using OB/TLM material. The following tools developed by the investigator were used: (a) classroom observation schedule for ascertaining the use of OB materials and TLM, (b) questionnaires for teachers and headmasters of experimental school to ascertain their views on the use of OB and TLM, (c) students' interview schedule to record their reactions following the use of TLM, and (c) achievement test for students to evaluate the effectiveness of the use of TLM and OB. A pre-test and a post test each of 20 marks were conducted on students for this study. Following the pre-test, science teachers in these schools were oriented on how to use OB materials and TLM in a workshop. Then they were kept on observation for 45 days. For analysing the data, the use of OB/TLM was ascertained through percentage analysis, school-wise and experimental data analysis was made through descriptive and inferential statistics. To ascertain the significant difference in the use of OB/TLM achievement scores in the pre-& post-test level, the critical ratio 't' was calculated and tested for significance.

Major findings: (1) Nearly all the schools covered under this study had been provided with science kit box and other OB materials. (2) About 15% of the teachers failed to recognise equipment in the science kit box and could not develop TLM for teaching the subject. (3) Use of OB/TLM in teaching science exerted a considerable influence on the level of achievement of students. (4) Appropriate use of TLM enhanced the teaching process and improved the understanding of students to great extent, as can be safely inferred from the noteworthy difference between their achievement before and after experimentation. (5) Effective use of OB and other TLM promoted resourcefulness among teachers and they seemed to make efforts to prepare low-cost aids for teaching.

Implications and action points: 1. Teachers should prepare improvised aids for ensuring a more fruitful teaching-learning process. 2. Preferably, all schools should be covered under the OB scheme for ensuring effective learning. 3. Workshops, seminars, orientations may be organised for the effective use of OB and TLM. 4. The use of science kit and other TLM could better motivate and enhance children's learning capabilities. 5. The same methods could be used in other subjects like mathematics, EVS, MIL for accomplishing better results. [Project duration: April-December, 1998] {OR/21}

DAS, K.K. *ET AL.* 1998. **School effectiveness and learner's achievement - a baseline assessment study of primary schools in Orissa (Vol. I: Bolangir, Kalahandi, Rayagada, Gajapati & Dhenkanal districts)**. *Orissa: Directorate Teacher Education & SCERT, Bhubaneshwar.*

Objectives: (i) To measure the level of learners' achievement at primary level in language and mathematics, (ii) to examine the differences in achievement levels among the students of primary schools in terms of gender, location and caste variations, (iii) to identify and analyse the factors that influence learner's achievement, (iv) to examine the influence of family and school as dropout factors in primary schools, (v) to assess the status and functioning of primary schools, and (vi) to probe into the factors contributing to the school effectiveness.

Scope and geographical coverage: Bolangir, Dhenkanal, Gajapati, Kalahandi and Rayagada districts.

Methodology: The sample of the study comprised of 194 schools, 513 teachers, 1,801 students of class V, 2,125 students of class II and 358 dropouts selected through multi-stage random sampling procedure in the five districts. The tools used were mathematics achievement test for class V, achievement test for class II both devised by NCERT and literacy & numeracy test for dropouts. For other essential information on school effectiveness, the following were used: (a) students present schedule, (b) students dropout schedule, (c) teacher's schedule, and (d) school record schedule. Besides, a set of field notes for each school were maintained. The four type of sample units *i.e.* schools, learners, dropouts and teachers were selected during the following three phases: (i) in the first stage, 20% of blocks and urban conglomeration (*i.e.* 13 blocks and 9 urban areas) from each district were randomly selected, (ii) in the second stage, sample schools were selected from the above selected blocks and urban areas. Approximately 3% of the schools in a district (*i.e.* ranging between 35-45) were chosen both from rural and urban areas in proportion to their population. A total of 194 schools (178 rural and 16 urban) were selected randomly, and (iii) in the third stage, teachers (including headmasters), students of class II & V and dropouts were selected. Two statistical methods of data analysis were employed: frequency and percentage distribution with respect to each attribute of the concerned variable. For intra-group comparison, t-test was used.

Major findings: (1) The findings were broadly categorised under the following five headings: (a) school's infrastructure and management, (b) teachers and teaching-learning process, (c) dropouts: characteristics and achievements, (d) achievement of class II students, and (e) achievement of class V students: characteristics and learning achievements. (2) On an average, the percentage of enrolment of boys (58%) was higher than that of girls (42%) in all the districts. (3) The enrolment of rural children was significantly higher than that of urban children. (4) The number of working days in most of the districts varied from 201-50 in most of the cases. (5) Nearly all the sampled schools had their own building. Furniture *i.e.* chairs and tables was available in a modest way in more than 50% of the schools. About 58.5% of the schools had playgrounds as well. (6) Community support for the school varied from district to district. However, over 7.5% of the schools had no community support at all. (7) As many as 18% of the teachers in all the districts had qualifications less than the prescribed norm. (8) The three essential instructional items: blackboard, chalk and duster were available in all the sampled schools. (9) About 90% of the schools possessed basic teaching aids like teacher's guide, dictionary, map, globe, flash cards and science kits. (10) About 57% of schools in all the five districts were practicing multi-grade teaching. (11) For teaching language, textbooks was widely used, whereas for mathematics, specially prepared materials were frequently used. (12) Home assignments were given on a regular basis by more than 70% of the teachers. (13) A majority of the teachers (66%) pointed out that headmasters did not supervise their classes or take feedback for improvement in teaching. (14) Majority of the teachers were satisfied with the assistance received from the Block Education Officers. (15) About 92% of the headmasters reported that they checked diaries and gave monthly tests. However, this was contradictory to the feedback received from teachers. (16) SC/ST children had a greater dropout rate. (17) The dropout rate at the end of class I, II and V were found to be 25%, 33% and over 40% respectively. (18) About 50% of the children stated that parental unwillingness, difficulties in studies and engagement in household activities were the major causes of their discontinuance. (19) As far as the attainment of mastery in language by students of class II was concerned, the percentage of urban students was higher than that of their rural counterparts. However, in numeracy, none of the students had achieved MLL in any of the districts. (20) In the case of class V students, gender difference was not found to be significant in the level of achievement in language. However, rural students performed better than their urban counterparts in language. It was also observed that a large number of them were below the MLL acquisition level in mathematics. (21) Mathematics was highly co-related with all the components of language except with that of reading comprehension and finding out the central idea of a given passage. {OR/22}

DAS, K.K. *ET AL.* 1998. **School effectiveness and learner's achievement - a baseline assessment study of primary schools in Orissa (Vol. II: Bargarh, Keonjhar and Sambalpur).** *Orissa: Directorate of Teacher Education & SCERT, Bhubaneshwar.*

Objectives: (i) To measure the achievement in language (reading) and mathematics of class II and class V students, (ii) to examine the difference in achievement levels in terms of learner's gender, locality and caste variations, (iii) to identify and analyse the factors relating to home, school and personal that influence performance of learners, (iv) to examine the characteristics and performance levels of dropouts, and (v) to study the factors that contribute to school effectiveness.

Scope and geographical coverage: Baragarh, Keonjhar and Sambalpur districts.

Methodology: The sample of the study comprised 126 schools, 343 teachers, 1,725 students of class V, 1,745 class II students and 188 dropouts selected from both rural and urban areas following multi-stage random sampling procedure. In the first stage, about 20% of blocks and urban areas (*i.e.* 34 blocks and 14 urban areas) were selected from each of the three districts. At the second stage, about 3% of the total schools in each block and urban areas (*i.e.* 108 rural and 18 urban schools) were selected. In the third stage, teachers, students and dropouts were randomly selected from these schools. To assess the learning achievement of students, the following tools were used: (a) Language assessment test and mathematics achievement test for class V students, (b) Achievement test for class II students, all the three developed by NCERT, (c) Literacy and numeracy test for dropouts for assessing the learning environment and personal characteristics, (d) Students present schedule, (e) Students dropout schedule, (f) Teacher's schedule, and (g) School record schedule.

Major findings: These are categorised under the following five headings. (1) Schools: infrastructure and management: (a) rural students had a significantly higher proportion of enrolment than that of urban students, (b) on an aggregate, SC and ST students had a better rate of enrolment in all the three districts, (c) Nearly all the schools had 201-250 working days in a year, (d) with the exception of about 5.6% of the schools in Sambalpur, nearly all had their own building and more than half of them were functioning with five or more classrooms in each district, (e) nearly 70% of the schools possesed essential facilities like chair, table, school bell *etc*, (f) more than 50% of the schools had play materials and game instruments, (g) the apparent teacher-pupil ratio was 1:35 in Keonjhar & Sambalpur and 1:45 in Baragarh, and (h) majority of the schools did not receive any community contribution. (2) Teachers and teaching-learning process: (a) male teachers outnumbered female teachers in all the districts. A majority of them were in the 35-44 years age group, (b) more than 80% of the teachers had professional qualifications. The percentage of teachers desirous of in-service training ranged from 53.7% in Baragarh to 67% in Keonjhar, (c) transcription from the textbook was a frequently used method in multi-grade situation, (d) more than 50% of the teachers reportedly developed their teaching materials and over 60% gave home assignments to students, and (e) most teachers complained that head teachers and BEOs did not supervise the classroom performance of teachers. (3) Achievement of class II students: (a) more than 70% of the sampled students in Keonjhar & Sambalpur and 59% in Baragarh had pre-school experience, (b) As far as achievement in language in the three districts was concerned, the mean scores in reading of alphabets was higher than that of word reading, (c) no difference was not found in the achievement levels in language of class III students either sex-wise or on the basis of locality, (d) the percentage of class II students who scored more than 80% marks in letter reading ranged from 42.34 in Baragarh to 63.82 in Sambalpur, (e) the percentage of students securing less than 40% of marks in letter reading ranged from 15.24 in Baragarh to 37.44 in Sambalpur, and (f) with regard to achievement level in numeracy, the performance of girls and urban students was lower than that of boys and rural students respectively. (4) Class V students: their characteristics and learning achievements: (a) more than 85% of the students had three meals a day, whereas nearly 11% of them did not, (b) the percentage of students admitted in primary schools having pre-school education ranged from 10.2 in Sambalpur to 34.2 in Baragarh, (c) the percentage of students being taught in their mother-tongue was 21.6, 24.1 and 34.4 in Sambalpur, Keonjhar and Bargarh districts respectively, (d) urban students and those belonging to the higher caste and OBC categories had significantly higher mean scores in language, compared to those of rural and SC/ST students, and (e) in the three districts, a high percentage students had less than 40% achievement in mathematics. A small percentage of students attained 80% or more in mathematics. (5) Dropouts: their characteristics and achievements: (a) most of the dropouts were from rural areas and in particular belonged to the ST category, (b) non-availability of textbooks and assistance in household activities were the two most important causes for dropout, (c) with regard to the achievement level of dropouts, rural students of Sambalpur had the highest and those from Keonjhar had the lowest scores, (d) barring a small percentage of dropouts in Keonjhar, none had scored more than 60% level of achievement in language, irrespective of gender, locality or caste, (e) as far as achievement levels in numeracy was concerned, male dropouts of Keonjhar had the best performance whereas girl dropouts from Sambalpur had the lowest scores, (f) rural dropouts of Keonjhar district performed significantly better than their urban counterparts in the numeracy test, and (g) ST and OBC dropouts demonstrated significantly higher achievement level in numeracy than the SC and Other groups. {OR/23}

BHATACHARJEE, D.K. 1998. **How to operationalise research-based interventions/strategies to improve the pedagogy of rural primary schools working in multi-grade context?** *Orissa: Regional Institute of Education, Bhubaneshwar.*

Objectives: (i) To list out research on MLL-based pedagogic interventions for implementation in multi-grade school situations, (ii) to explore management strategies prescribed for operationalising pedagogic interventions, and (iii) to suggest certain action points to operationalise research-based pedagogic interventions/management strategies so as to improve the pedagogy of rural multi-grade schools.

Methodology: The study is based on secondary sources *i.e.* review of relevant literature.

Major findings: The following pedagogic interventions for multi-grade teaching have been suggested under these headings: (1) Content-related interventions: (a) Identification of curriculum content for organisation of whole school activities. Following this, whole school teaching could be made possible by group or cooperative learning. Such areas could include value education, physical education, work education, art education and some selected areas of EVS, (b) meaningful integration of themes/contents/competencies belonging to different subject areas and of different classes: to reduce the content load, certain contents/concepts/ competencies can be meaningfully integrated. Such integration is possible in language, art education, EVS, mathematics *etc*. The integration can also be made vertically through different grades, (c) Organisation of activities based on the contents of the same subject areas for different classes: This should be systematically organised. For example, in EVS, in class I, the lesson titled, 'Our Home' can be taught through direct teaching. Similarly, in class III the lesson 'Our District' can be taught in a group learning situation, (d) Blending of non-cognitive areas/themes with content areas of language, mathematics and EVS for total curriculum transaction: Certain non-cognitive themes like art education, physical education and value education, SUPW *etc* can be blended with cognitive content areas, (e) Organisation of activities through rotated multiple learning mode: In this setup, when one group comprising of different classes works with the teacher, the other groups are engaged in group learning, field visits, revising previous assignments, self learning *etc*, and (f) Extending learning activities at home by giving home assignments, involving problem solving, critical thinking, analysis, synthesis *etc*. (2) Management-related interventions: (a) Time-table management strategy - Flexibility is required in formulation of a time table, keeping in mind the nature of pedagogic strategies adopted, students' leaning needs and seasonal variations, and (b) Space management strategy - To tackle the problem of space, both indoor and outdoor activities can be organised in a way that it could be convenient to teachers and students. (3) Group management strategies - For the management of teaching in multi-grade situation the following different groups are to be formed: (a) Mixed ability grouping can be formulated for the organisation of whole class activities in selected curriculum areas. The group leader should conduct the activities with guidelines from the teacher, (b) Mixed socio-cultural grouping can be formed irrespective of the learner's grade affiliation to conduct activities under non-cognitive areas of curriculum, (c) Grouping of grades with lesser age difference and lesser subject load. Grades I & II and grade III, IV & V are to be grouped together for organisation of different activities, and (d) Grouping of classes which require direct supervision by the teacher (*i.e.* class I & II) and grouping of classes where teaching-learning could be conducted through group learning, peer-assisted learning or self-learning (*i.e.* class IV &V). (4) Strategies for operationalisation of multi-grade teaching: (a) Defining goals of learning in terms of concept attainment and competency/skill/ability development, (b) Preparing a diagnostic profile of a rural multi-grade school through collection of bench mark data. This will include learners' characteristics, teachers' characteristics, characteristics of teaching-learning process, level of community support, availability of material support and level of learners' achievement *etc*, (c) Learning organisation strategy: This could include the appropriate pedagogic strategy, to be selected on the basis of the diagnostic profile. Play-way method and joyful approach of learning should be adopted. Indoor and outdoor activities should be organised and self-learning method should be used. Value education should be linked with all the activities. Management strategy should vary from school to school and activities should be linked with the environment to the fullest extent, and (d) Evaluation strategies should include observation of actual performance in class, tools to measure school readiness, development of diagnostic tests, use of anecdotal record cards, criterion referenced test, oral questioning in class I and II, use of self-learning activity sheet *etc*. {OR/24}

SATAPATHY, M.K. 1997. **Development of local specific and activity-oriented resource materials for promoting learner-centred MLL-based teaching of EVS II in class III.** *Orissa: Regional Institute of Education, Bhubaneshwar.*

Objectives: (i) To identify and collect information relating to bio-physical, social-cultural and environmental resource diversities existing in Gajapati district, and (ii) to categorise and document the collected information with respect on curricular concepts reflected in the textbook.

Scope and geographical coverage: Gajapati district.

Methodology: The data for the study was collected from 30 selected primary schools located in seven blocks of the district. Of these, four each were from Paralakhemudni and Nuagan and five schools each from Kashinagar and Mohana block. The district is rich in natural resources. Besides, because of its proximity to Andhra Pradesh, it has a mixed culture, a bio-lingual population and low literacy rate. Typical schools, keeping in mind the student size, medium of instruction *etc* representing a cross-section of the block were selected in consultation with the DI and concerned SI of the schools. For content analysis, five topics from the existing textbook on EVS-II for class III were selected and a total of 27 concepts and 61 sub-concepts were recorded for this study. The five selected topics were: (a) our body, nutrition and health, (b) living world, (c) weather and seasons, (d) matter and its properties, and (e) the sky, sun, moon and stars. The study also looked into the development of activity-oriented teaching-learning materials to effectively impart MLL-based teaching in class III on the basis of the immediate environment of the child.

Major findings: Students of class III in the district were aware of the examples and activities mentioned their textbook.

Implications and action points: 1. The following local specific examples and activities would facilitate classroom teaching and teacher-taught relationship: (a) teachers in primary schools should not merely be a communicator or disseminator of knowledge as traditionally practiced. Rather, he should not only be aware of his pupils' interest and abilities, but the potential of the school environment and community resources as well. Ample opportunities should be given to students both individually and in the group, in and outside the classroom to enable them to observe, analyse, interpret and appreciate their natural and social environment. 2. In teaching-learning process in the classroom, the local-specific examples and activities, as suggested in detail in the research study would make learning both joyful and effective. {OR/25}

PADHI, J.S. & JADHAO, V.G. 1998. **School effectiveness and learner's achievement at the primary stage - a baseline assessment study of primary schools in Orissa.** *Orissa: Regional Institute of Education, Bhubaneshwar.*

Objectives: To study the (i) effect of school factors on achievement of learners, (ii) effect of school factors on reducing gender achievement gap, (iii) effect of school factors on reducing SC/ST and non-SC/ST achievement gap, and (iv) impact of state interventions on learner achievement, reducing gender achievement gap and SC/ST and non-SC/ST gap.

Scope and geographical coverage: Bolangir, Dhenkanal, Gajapati, Kalahandi and Rayagada districts.

Methodology: The required data was collected from 508 teachers, 1,756 students (including 630 girls) of class V selected from 188 schools situated in 18 blocks of these five revenue districts. Achievement test in mathematics and language was used to assess the level of attainment of learners. Schedules were used for data collection. The pupil level indicators constructed for the study had the following variables: gender, caste, father's & mother's education, father's occupation, if ever repeated a class and socio-economic status. The contextual factors included: school mean (SES) and per cent of SC/ST in school. The school factors were: teacher's qualification, teaching experience, in-service training, teacher's stay in school, instructional materials available in the school, number of teacher in the school, percent of female teachers, pupil teacher ratio, academic press in language & mathematics, giving tests & getting feedback, teachers assigning home-work and correcting them, teacher's commitment, Operation Black-board material, mid-day meal, free uniform & textbook and scholarship for regular attendance. The achievement scores were converted to standard scores. The pupil and school level indicators were subjected for logic transformations and standardised. The converted scores were subjected to Hierarchical Linear Model (HLM) analysis.

Major findings: (1) The pupil's background contributed to around 30% for both mathematics and language mean achievement scores. (2) On an average, the performance of girls, was lower than that of boys. (3) SC/ST pupils had a lesser level of performance than non-SC/ST students. (4) Parents' education and father's occupation were positively and significantly associated with pupil achievement. (5) Repeaters performed significantly lower than the non-repeaters. (6) The mean-SES of the school showed a positive and significant association with school mean achievement. (7) The quality of teaching, experience and in-service training of teachers were negatively associated with learners' achievement. (8) Educational materials in the school facilitated achievement in both the subjects. (9) Regular home assignments and its correction by teachers, regular tests & feedback, pupils solving mathematical problems in the class helped them to perform better. (10) No state intervention scheme was found to be effective for learners achievement. (11) No factor was found to be significant for reducing gender gap and SC/ST and non-SC/ST in achievement. {OR/26}

SUNWANI, V.K. 1997. **A case study of innovative in-service teacher training practices of Agragamee - a voluntary organisation of Orissa.** *Orissa: Regional Institute of Education, Bhubaneshwar.*

Objectives: (i) To identify the objectives of Agragamee in general and its educational objectives, in particular, (ii) to study the essential components of in-service teacher training practices being followed by the organisation, and (iii) to evaluate the feasibility of its training practices as an alternative model for replication in other situations.

Scope and geographical coverage: Kashipur block in Rayagada district.

Methodology: A study team of the Regional Institute of Education, Bhubaneswar conducted the study. The data for the study was based on observation (during the first four days) of a teachers' training programme organised by Agragamee from 15-20 November, 1996, interview of the organisation's Education Coordinator (EC) of Agragamee and its other functionaries. According to the information provided by the EC, a four-day training programme for teachers is conducted once every two months. Emphasis of such training is usually on capacity building of teachers in classroom teaching, community mobilisation and how to act as animators for the purpose. They were participatory programmes wherein they acted as a forum for sharing views and experiences among the trainees and trainers. The training manuals developed by NCERT (including its Oriya version translated by SCERT) were used in the training programmes. Besides, other training materials such as posters and charts developed by the organisation were also used. Cultural programmes by trainees and teaching by participating teachers were followed by discussions and finally constructive criticism by peers. Supervision of teaching was regularly taken up to assess whether or not training was being put to practice in classroom teaching.

Major findings: (1) Sharing of experience between trainers and the trainees motivated the teachers to participate in this programme. (2) The specific objective of the training *i.e.* capacity building of the participants, focussed trainers to be more goal-oriented in their training activity in order to realise the same. (3) The training programmes tried to develop in the participants the capacity to prepare and use teaching-learning aids according to their need. (4) These programmes have helped in regenerating the human resource of the organisation by using some of its students as facilitators of education (or guru bhais). (5) They had enabled teachers to act as village level animators for better mobilisation of community resources. {OR/27}

MISHRA, BHASKAR & HARPAL, J.K. 1998. **The impact of Anandamaya Sikhya on enrolment, retention**

and attendance in sub-urban area of Bolangir town. *Bolangir: DIET.*

Objectives: (i) To study the perception and involvement of students regarding *Anandamaya Sikhya* (joyful learning), (ii) to study the perception and views of parents and teachers on this new approach of teaching, (iii) to ascertain the extent to which the MLL objectives were achieved in the classroom setup as a consequence of this approach, and (iv) to investigate the effectiveness of this approach on students' enrolment, attendance and their retention in school.

Scope and geographical coverage: Bolangir town.

Methodology: The study was conducted in five primary schools located in sub-urban area of the town. The tools of data collection included three structured questionnaires administered by the selected teacher-investigators on teachers, parents and students in the sampled schools. Besides, one classroom observation schedule for monitoring teaching in classes I and II was prepared and the relevant data collected. The data was analysed through simple statistical methods.

Major findings: (1) As perceived by students, the following contributed to joyful learning (in descending order): (a) teaching of music, (b) student's ability to sing, (c) interest in games and sports, (d) activities like gardening, cleaning *etc*, (e) ability of students to read, (f) staying in school till closing hours, and (g) regular attendance of students. (2) Teacher's view on joyful learning revealed that they felt that there was improvement in: (a) children's acquisition of all the competencies, (b) regularity in attendance, (c) bringing dropouts back to school, (d) cognitive development of the pupils, (e) covering the entire course, and (f) students staying full time in school. Also they felt that the approach was easier to follow and was interesting to the pupils. (3) Parents too were in favour of joyful learning as was revealed from the following factors: (a) increase in parents' awareness of joyful methods, (b) helpful in creating interest among students, (c) helpful in enabling the child to acquire all the competencies, (d) helpful in engaging students at school, and (e) helpful for regular attendance on part of students. (4) The enrolment in classes I and II in the five sampled schools increased every year from 1994 to 1998. (5) The attendance in classes I and II improved during this period. (6) The percentage of dropouts in classes I and II declined slightly. (7) According to the class observation by the investigators, after the three-month implementation programme there was: (a) adoption of joyful methods by the teachers, (b) greater participation of students, and (c) development of healthy competition among them.

Implications and Action Points: 1. *Anandamaya Sikhya* (joyful learning) was *anandamaya* (joyful) for students, but it required proper comprehension on part of the teacher to implement it. Period training and orientation for them, as such, was necessary. 2. This approach requires more of TLM. Hence, the required educational material should be supplied to each school. 3. Books containing the list of joyful activities related to different lessons should be provided to teachers in order to standardize teachers' performance in the State. 4. Regular inspection and monitoring by the respective functionaries like inspection officers, DIET personnel, VEC members was necessary to enhance the impact of *Anandamaya Sikhya* in primary education. [Project duration: August 1998-May 1999] {OR/28}

BAGHAR, R.N. & PRADHAN, B.B. 1998. **Effectiveness of organising faculty meetings on functioning of primary schools.** *Bolangir: DIET.*

Objectives: (i) To study the existing structure and functions of faculty council in primary schools, and (ii) as a result of organising faculty council meetings: (a) to assess the change in the awareness of teachers with regard to UEE and the emerging concept of education, (b) to assess the change in the classroom performance of teachers, (c) to study the change in the disparities between boys and girls and various caste groups (SC, ST and General) with respect to their attendance, and (d) to study the performance of schools *vis-a-vis* curricular and co-curricular activities.

Scope and geographical coverage: Bolangir District. [Project duration: August 1998-May 1999] {OR/29}

(Note: Findings of the above study (though complete) were not available at the time of going to press)

TAMILNADU

EREM. 1997. A study on the levels of ease and difficulty in teaching competencies in I standard as perceived by the teachers in Pudduppalayam block in Thiruvannamalai district. *Tamil Nadu: EREM Wing, DPEP, Chennai.*

Objectives: To identify the specific competencies of practicing teachers in Tamil, mathematics and EVS in class I.

Scope and geographical coverage: Puduppalayam block in Thiruvannamali District,

Methodology: A total of 64 practicing teachers constituted the sample. Their responses on a five-point rating scale were analysed to find out the hard spots through use, among others, of a Chi-square.

Major findings: (1) In mathematics, competencies relating to place value of digits, mental addition, single-digit mental subtraction, use of +, - and = symbols were stated to be difficult. (2) In Tamil, the hard spots included, answering a question, asking questions one after another, recognising common letters, reading small print letters, writing words and sentences. (3) In EVS, knowledge about the earth, the sun and the stars was stated to be difficult. (4) All these findings were found to be confirmed, the teacher's experience, sex and qualifications notwithstanding. [Project duration: August-October 1997] {TN/01}

SANTHANAM, M.R. & VARADHARAJAN, THIRU K. 1998. Alternative schools - a sample survey. *Tamil Nadu: EREM Wing and Alternative Schools Division, DPEP, Chennai.*

Objectives: (i) To develop profiles of the AS centres, instructors and learners, (ii) to study the school-community synergy activities initiated by instructors, and (iii) to know the perceptions of instructors on non-enrolment and scheme improvement.

Scope and geographical coverage: Dharmapuri, Cuddalore, Thiruvannamalai and Villupuram districts.

Methodology: The required data was collected from one instructor each in the 180 AS centres and 4,707 children. One block was randomly selected in each district; however, all the AS centres in the selected blocks were included in the survey. A questionnaire-cum-information schedule containing 40 items (three open-ended, while quite a few dichotomous) was administered to the instructors. Both numerical and qualitative data were collected. The tool development followed detailed discussions on data collection between the EREM Wing and the AS Division. The data collection strategy involved one-day consultation conferences where the questionnaires were filled. Descriptive statistics and, wherever necessary, non-parametric statistical techniques like chi-square were employed to analyse the data.

Major findings: (1) With 55% of the AS centres functioning in school premises, the school appears to be the most preferred location for the centres. (2) Whether the AS Centres is located in the school premises or in the instructor's residence, that does not appear to affect the duration of daily programmes. (3) Nearly 60% of the non-starters were girls. They also outnumbered boy dropouts. (4) The learners were mostly in the age group of 10-12 years. (5) While boys had the low extremes of average attendance, girls had wide ranges of the same. (6) A majority of the instructors were educated upto Plus 2 and were below 30 years of age. (7) Most of the instructors had to forge closer contacts with nearby primary schools in order to avail of their resources. However, only two-thirds of them utilized the TLM of their nearby primary school. (8) Nearly all the instructors met parents of the truant learners; they also confirmed that the learners were, by and large, interested in studies. (9) The instructors generally were not averse to the idea of meeting parents, however, two-thirds of them neither met the VEC members nor conducted any conference for school improvement. (10) Household work, poverty, tending to cattle, working on daily wages and baby-sitting were among the most common causes for non-enrolment. Parental counselling and personal advice to the long-absenting children were among the steps initiated by the instructors to encourage enrolment. (11) The instructors suggested distribution of play material, uniforms and attractive instructional aids for drawing children to the school. [Project duration: January-February 1998] {TN/02}

SANTHANAM, M.R. 1998. **Mid-term assessment survey (MAS) in phase I districts of DPEP in *Tamil Nadu*.** *Tamil Nadu: State Project Directorate, DPEP, Chennai.*

Objectives: (i) To assess students' achievement in Tamil and mathematics in the initial and penultimate classes, and (ii) relating the above to certain antecedent variables.

Scope and geographical coverage: Dharmapuri, Cuddalore, Thiruvannamalai and Villupuram districts.

Methodology: The sample consisted of 200 schools, 663 teachers, 7,471 students and 331 dropouts. The survey design provided for collection of test data - four different tests and non-test data - four different schedules. Also, the Baseline Assessment Study (BAS) 1994 tests were re-administered in five schools is in each district, which were among the sampled 50 schools in each district. The data collection was preceded by due process of selection, training and orientation of field investigators. Supervision was done by trained experts. The data was analysed using descriptive and inferential statistics in terms of pre-determined framework consisting of 98 tables.

Major findings: (1) Besides district-specific findings, the study led to certain general findings, as well as relating to students' achievement in MAS, their comparative profiles of achievement in BAS tests of 1994 and MAS 1997 as also school profiles, teacher profiles and profiles of students including dropouts. (2) The average achievement scores in Tamil ranged between 56-82 in class I and 42-60 in class IV, while the scores in mathematics ranged between 50-78 in class I and 30-48 in class IV. (3) There was perceivably a general syndrome of girls attaining lesser grades than boys, rural areas lagging behind urban ones and SC/ST children trailing far behind children of Other category.

Implications and action points: 1. Barring a few exceptions, the achievement levels of class I in language in Dharmapuri and Cuddalore districts, of class IV in language and mathematics in Thiruvannamalai district needed to be raised. [Project duration: July 1997-May 1998] {TN/03}

SANTHANAM, M.R. 1999. **An evaluation study of the local escort system (LES).** *Tamil Nadu: State*

Project Directorate, Chennai.

Objectives: (i) To develop general profiles of schools were LES was in operation, teachers working there and also of the ayahs (escorts), (ii) to assess the relative extent of the escort services provided, and (iii) to study the possible relationship between LES on one hand and enrolment, average attendance, pupil absenteeism, dropout and grade repetition phenomena on the other.

Scope and geographical coverage: Dharmapuri, Cuddalore and Thiruvannamalai districts.

Methodology: The study was conducted in all the 73 schools where the LES had been introduced on an experimental basis. The principal tool of data collection was an information schedule administered on headmasters of the concerned schools. It comprised of the following four sections: (a) school information, (b) teacher schedule, (c) profile of *ayahs* and their educational qualifications, and (d) pupil information. Two pre-launch exercises, a one-day seminar and a one-day field visit were conducted for the study. These were conducted to determine the scope, content and design of the information schedule. The pre-launch seminar was held in October at Chennai and attended by the concerned ADPCs and BRG supervisors. The field visit was organised to Thally block in Dharmapuri District during the same month. The data analysis framework provided for 19 tables to organise and study the data *vis-à-vis* the objectives. The data analysis design included comparison of certain measures of descriptive statistics as supported by non-parametric tests of significance.

Major findings: (1) The study was able to compile detailed profiles of the scheme schools, the teachers working there and the *ayahs* rendering the escort services. (2) The ayahs, particularly in Dharmapuri District, were found to be performing two or more non-escort services in an impressive manner, like providing classroom instructions, baby-sitting, sweeping & cleaning the premises and arranging for drinking water. (3) Following the introduction of LES, there seems to be some 'LES-inspired' rise in enrolment levels in the districts, both individually and collectively. On an average, a 3.3% increase was noticed. (4) The average monthly attendance level across the districts rose by 731 as a result of the LES. Pupil absenteeism was also contained by the LES. (5) A sizable decline (from 60 to 48) in the per class average number of dropouts was witnessed. (6) The phenomenon of average grade repetition also registered a marginal decline (*i.e.* from 197 to 193). (7) There seemed to be, on the whole, a positive evidence vouching for the beneficial effects of LES on certain substantive parameters of primary schooling which is of critical significance to DPEP.

Implications and action points: 1. There exists a need not only for a streamlined continuance of the LES, but also for its extension to other areas, at least in a phased manner. [Project duration: October 1998-January 1999] {TN/04}

SANTHANAM, M.R. ET AL. 1997. **Baseline assessment study (BAS) in phase II districts of DPEP, Tamil Nadu.** *Tamil Nadu: State Project Directorate, DPEP & DTERT, Chennai.*

Objectives: (i) to attempt a sample study, chiefly as a benchmark exercise prior to the launch of the DPEP in the three districts, (ii) to assess pupil achievement in Tamil and mathematics in the initial and penultimate classes, and (iii) relating it to certain variables like sex of the child, the child's community and area distinctions.

Methodology: The sample of the study consisted of 153 primary schools including 18 middle schools, 4,979 pupils, 425 teachers and the 367 dropout children. The tools used included four-test instruments besides five non-test schedules. The data collection preceded systematic selection and orientation training of field investigators. The field work was supervised by well-trained experts. While the test data was obtained directly after administering the tests, the non-test data was collected from school records. The data on the dropouts was collected through interviews. The data was analysed using largely descriptive statistics.

Major findings: (1) The study led to detailed findings relating to schools, teachers and dropouts. (2) The mean achievement scores of class II students ranged between 49-61 in language and between 48-59 in mathematics. In the case of class V students, this ranged between 41-49 in language and between 33-45 in mathematics. [Project duration: 1996-May 1997] {TN/05}

UTTAR PRADESH

DASTGIR, GHULAM. 1998. **Role of community and other factors in promoting primary education amongst Muslim girls in the district of Saharanpur (UP).** *New Delhi: Institute of Advanced Studies in Education, Faculty of Education, Jamia Millia Islamia.*

Objectives: (i) To ascertain the working status of Operation Blackboard, functioning of ICDS, ECCE, *baalwari etc* by using rapid appraisal method, (ii) to investigate the social, economic, cultural, psychological, religious and other forces which play a detrimental role in promotion of education in the Muslim minority, in terms of enrollment, retention and dropouts, (iii) to elicit views and opinions of the Muslim minority on conditions under which they would like to promote education of boys and girls from their community, (iv) to analyse and develop culture-friendly strategies in order to reinforce community-based approach for popularising education among Muslim girls, and (v) to ascertain the role of *Dini madarasas* in promoting primary education in general and girls education in particular.

Scope and geographical coverage: Saharanpur city and Deoband in Saharanpur District.

Methodology: The study was conducted in 11 blocks of the district which happens to be a Muslim-dominated district of western UP. Five *mohallas* from each block were selected randomly. Data was collected from 200 households. The tools of data collection included a structured questionnaire consisting of 161 variables developed for the purpose of study. It included details about family education, occupation and income of the family, perception on girl's education, reasons for non-enrollment & dropout and strategies to promote girl's education.

Major findings: (1) There was absence of NFE educational facilities, *anganwari* centers, *baalwari etc* in Muslim-dominated areas; there was a need for the same. (2) Nearly 83.5% parents favoured religious as well as school education for their children, especially girls. (3) The family size of Muslim households was comparatively large; despite poor economic conditions around 57% of the respondents sent the girl child to school. (4) Nearly all acknowledged the positive role of *mohalla* education committees in motivating parents to send their children, specially girls to schools. It was felt that *maulvis* should be involved to propagate the promotion of education amongst Muslim girls. (5) The study explains the role of *Deeni madarasa*. It has been reported that religious heads running these madarsas had shown their willingness to extend their support in running a primary school within the *madarasa* premises.

Implications and action points: 1. The state government should sponsor projects for conducting rapid surveys to ascertain the educational facilities available in all Muslim dominant districts of UP, both rural and urban and create facilities for education, at least up to lower primary level. 2. It was felt desirable that in the implementation of community-oriented strategies of promoting girls education, inter-sectoral or inter-departmental co-operation had to be under the administrative control of District magistrates, who in turn should further decentralise their power by nominating appropriate officers at the district level for carrying out time-bound implementation of strategies. 3. Concerned district-level officers from the Education Department should be given orientation training on community-based strategies (CBS). There was a need to incorporated CBS in all training institutions where state administrative officers were routinely trained. 4. Each Muslim-dominated *mohalla* should have a primary school, preferably with a woman teacher. 5. If Muslim women teachers were appointed in such areas, the process of promoting girls' education would get accelerated. In case of non-availability of trained Muslim teachers, untrained females, preferably from the same areas, could be appointed on contractual terms and conditions. 6. Land Acquisition Committee should make concrete plans to acquire land for setting up primary schools for Muslims. 7. To promote girls' education, *mohalla* education committee with involvement of *maulavis* and other local/influential leaders should be engaged to motivate people for educating girls. 8. Girl's Education Volunteers Scheme (GEVS) could be launched, as a special case, in the Muslim-dominated areas to encourage and educate parents. Local educated women should be encouraged to participate in this scheme. 9. Provision for salary teachers in *madarasas* would encourage the *madarsas* to undertake the role of promoting girl's education by running a primary school for their community. {UP/01}

SINGH, SHAILENDRA. 1998. **An assessment of the training needs of head teachers for effective primary school management.** *UP: Indian Institute of Management, Lucknow.*

Objectives: (i) To study why certain schools are more effective than others, (ii) to identify the basic skills required for being are effective head teacher, and (iii) to assess and identify the training needs of primary school head teachers.

Scope and geographical coverage: Saharanpur and Sitapur districts.

Methodology: The sample of the study comprised 100 schools selected in equal number from the two districts, 100 head teachers, 100 VEC members/community members/parents and 2 SDIs. The tools of data collection included organisational health description questionnaires, school characteristics and facilities questionnaires, head teacher's interview schedule, head teacher's role questionnaire, head teachers activity questionnaire, head teacher's job satisfaction questionnaire and community/parents' interview schedule.

Major findings: (1) Partially effective schools had active and motivated head teachers, active community support, infrastructure facilities and assistant teachers. (2) It was found that the more the school facilities, the better was the school atmosphere. (3) Schools in Saharanpur had better organisational set up than schools in Sitapur. (4) Head teachers indicated moderate-high job satisfaction, the overall average being 75%. In Saharanpur District, the head teachers were more satisfied than their counterparts in Sitapur District. (5) The head teachers perceived all activities in their domain to be of high importance. The areas in which more than 80% of them wanted to enhance their proficiency were: to evaluate the development of school, to use available opportunities for professional development and successful use of multi-grade teaching.

Implications and action points: 1. Resources should be mobilised through the community. A sense of empowerment at the local level should be created to have a better participative management of schools. 2. Training of head teachers was essential to develop their competencies in managing schools. This would enable them to perform their multiple roles effectively. 3. Head teachers should be given special training in areas of financial management such as, proper handling of school development grants, salary bills, other grants and donations given by the local community. 4. It was imperative that re-orientation training should focus on the relevance of community participation in school management, leadership and team-building. 5. The foundation training should match with the overall role requirement of head teachers. It should not just include technical subjects but should focus on office/school management and financial management too. Inter-personal skills should also be included in the training. 6. Teachers should be given refresher training after every 3 to 4 years to enable them to adapt to the changing needs of the school management on a regular basis. 7. Head teachers were saddled with a burden of extra-academic responsibilities, which should be reduced. This would enable them to use their skills and knowledge for improving the quality of education in their primary schools. {UP/02}

VINAYAK, SUSHMA. 1998. **Improving effectiveness of early childhood care & education (ECCE) in Uttar Pradesh.** *UP: Society for Action Vision and Enterprises, Lucknow. Sponsored by UPBEP.*

Objectives: (i) To analyse the overall functioning of ECCE centres with special reference to the level of enrollment, attendance/retention, learning level, health check-up *etc*, (ii) to examine the process of capacity building of ECCE workers and its overall impact on the quality of ECCE programme, (iii) to study the role of VEC in the location and management of ECCE centres and improvement of primary teachers in ECCE programme, (iv) to examine the coverage of SC children and girls in the 3-6 years age group by ECCE centres, (v) to examine community's perception of ECCE, role of ECCE workers in generating community participation and the existing status of community participation, (vi) to identify major problems and issues connected with the implementation of ECCE programme under UPBEP, and (vii) to offer suggestions for improving the effectiveness of ECCE programme.

Scope and geographical coverage: Sitapur District.

Methodology: Fifty percent of the ECCE centres opened under phase I in the district were selected randomly for this study *i.e.* 15 from each district besides 60 household beneficiaries & 75 children from each district, primary teachers, VEC members and officials *etc* in order to ascertain the views, perceptions, attitude and suggestions of all the stake holders. Both quantitative (statistical) and qualitative (PRA) techniques were used with greater emphasis on qualitative aspects of the study. The tools used for data collection were schedules for: ECCE centres, households, assessment of the learning level of children, office & secondary data collection, and PRA technique.

Major findings: (1) ECCE centres were opened in villages having lower female literacy and higher percentage of SC in the total population. (2) In a few villages, duplication of services occurred *i.e.* additional ECCE centres were opened where an ICDS centre was operational. (3) Low level of community participation through VECs in ECCE activities and lack of awareness among community about ECCE was observed. (4) Primary teachers, except in school-based ECCE centres, were indifferent to ECCE centres. (5) The overall retention rate was nearly 100% except in case of SC girls. (6) The overall learning level was achieved by more than 60% of the children (with worked regional variations) but only around 40% of them could achieve the desired level of language development. (7) The overall attendance of children was 55%. (8) ECCE workers were over-burdened and received an honorarium which was only one-sixth of the salary of class I teachers in primary schools. (9) The coverage of children in the 3-6 years age group by ECCE was 47%. (10) Long timings of ECCE centres for 3-6 years children. (11) Convergence with ICDS was found to be weak in terms of training, monitoring and supervision. (12) Monitoring and supervision was found to be a neglected area. (13) Inadequate soft toys/teaching aids and activities were limited only to a few songs, stories and plays. (14) There were infrastructural problems in centres operational in private houses and genuine difficulties of school-based centres in conducting group activities. {UP/03}

MALHOTRA, SUDH. 1998. **A study of enrollment, attendance and retention in primary schools in relation to incentive schemes.** *UP: Innovative Research Association, Allahabad. Sponsored by UPBEP.*

Objectives: (i) To undertake a comparative study of the enrollment, attendance and retention of children in those primary schools where incentives were being provided with those where they were not, (ii) to find out the difference, if any, in the enrollment, attendance and retention of children in primary schools of rural areas on gender and caste, and (iii) to find out the difficulties or barriers and reasons for not attending school despite incentives being given to them.

Scope and geographical coverage: Allahabad District.

Methodology: The units of observation of this study comprised children studying in classes I to V in the *Basic Shiksha Parishad* schools and private schools of 16 villages chosen from the five selected blocks in the district. The final data was collected from one junior basic school of each village. For comparison, a private primary school was also taken. Besides consulting the school records, interviews of students headmasters, parents and village headmen were also conducted to ascertain the effectiveness of the two incentive schemes - *Poshahaar* and scholarship to SC students. Reasons and barriers for not sending their children to school were also determined. The tools used for data collection included school record schedule and interview schedules for: village headman, headmaster, parents and students.

Major findings: (1) Enrollment in schools giving incentives was higher than in those schools which did not. (2) Number of boys in these schools was more than the number of girls. (3) Enrollment of backward castes was found to exceed the enrollment of the rest of the categories. (4) Attendance in schools without incentives was higher than that for schools with incentives. (5) Attendance of boys was higher than that of girls. (6) Category-wise there was no such marked difference in attendance. (7) The retention rate was higher in schools without incentive as compared to schools with incentives. (8) The two schemes - *Poshahar* and scholarship scheme had helped in raising enrollment of students in these schools. {UP/04}

BHANDARI, SUDESHNA. 1998. **Mid-day meal: Effect on enrolment and retention at primary level.** *New Delhi: MODE Research. Sponsored by UPBEP.*

Objectives: To study the (i) effect of mid-day meal scheme on enrollment at primary level, (ii) effect of mid-day meal scheme on retention at primary level, and (iii) reasons underlying dropouts in the post-mid-day meal period.

Scope and geographical coverage: Rampur Mathura and Maholi blocks in Sitapur District.

Methodology: The required data was collected from 120 primary school-going children, 80 dropouts of similar age, 64 parents of children who were attending primary school, 32 parents of children who had dropped out from primary school, 32 school teachers and 16 community leaders. In-depth interviews with parents were conducted at their residence and those with community leaders were conducted primarily at the community gathering places. Students were contacted in school and so were the teachers/administrators. Drop-out children were contacted either at home or place of work. The study was conducted at two levels: school level and community level. A pre-test of the study was done before conducting the main study. The latter study included both qualitative and quantitative methodologies. Both components revolved around knowledge, attitude and practice with respect to education and mid-day meal scheme in the area. The quantitative component brought out information on the scheme via structured questionnaire. It was also used to gather data on enrollment and retention performance among the sampled schools.

Major findings: (1) A majority of the schools (93%) had *pucca* building. (2) Multi-grade teaching was practiced in all the primary schools except one in the urban area. (3) The majority of the girls (63%) came from the same village in which the school was situated. (4) In overall terms, the school record showed that enrollment had increased since 1996 with some exceptions; however, a decrease in enrollment in 1997 was observed. (5) The dropout rate in general was observed to have declined since 1996. (6) A sudden increase in attendance was evident since 1996 in almost all the schools. However, distribution of mid-day meal did not appear to have any bearing on the attendance, since the criterion of distribution of dry-ration to only those who had at least 80% attendance was not strictly adhered to. (7) Special efforts had been made by 65 and 83% of the teachers in Maholi and Rampur Mathura blocks respectively to bring back dropout students. (8) Distribution of dry-rations in the form of wheat since 1996 was acknowledged by 86% teachers. Presumably, the rest were not aware of it being distributed in their school. A majority (96%) of them stated that it was given since students attended classes regularly whereas 20% felt that students being good at studies was the reason underlying it. The suggestions for improving the scheme included changing the criteria of attendance to 80% for eligibility for mid-day meal. (9) In Maholi and Rampur Mathura blocks, 18 and 40% of the children respectively were above 10 years and the average age of the child was 10 years. Hence, children older in age were studying in primary schools possibly due to late schooling which was around 28%. (10) Most of these children belonged to large families with an average size of seven members. Around 20% of the brothers and 40% of their sisters were not literate. (11) Overall, a positive attitude towards teachers and teaching was observed and nearly all were comfortable in attending school. Around 88% stated that teachers came to school daily and 79% felt that they taught well. (12) Dropout children: In Rampur Mathura block, all dropouts were from government schools as against 80% in Maholi block. The rest in Maholi block were aided-school dropouts. The average age of these children was 11 years. The present occupation of the dropouts was looking after siblings (33%) helping mother (29%), helping in the fields (10%) cattle rearing, household work *etc*. Most of these children (76%) had started going to school when they were between 5-8 years. More than 50% were class II passed and only 14% had passed class IV. Reasons behind dropping-out from school were economic including helping parents; other reasons were teacher related such as teacher not teaching well (19%), teacher indulging in beating (12%) *etc*. (13) Parents and community members made comments on teaching in the school and on the incentive schemes. Some felt that teachers were doing their job properly whereas some suggested that children be given cooked food, biscuits *etc* instead of dry rations. {UP/05}

SINGH, Y.P. 1998. **Parishad vs private school: A comparative analysis.** *UP: Giri Institute of Development Studies, Lucknow. Sponsored by UPBEP.*

Objectives: (i) To compare the two types of schools with respect to quality of teachers and other facilities, MLL, teacher-students ratio, dropout rates and stagnation, social and private cost of providing education, (ii) to analyse those factors which have contributed towards increasing popularity of private schools, and (iii) to offer suggestions that would facilities in improving the existing conditions of parishad schools.

Scope and geographical coverage: Gorakhpur and Saharanpur districts.

Methodology: From each district, three blocks were selected on the basis of high, medium and low level of literacy. From each block, two *parishad* and two private schools were selected which were being run efficiently. The sample comprised of 12 schools of each type in the two districts. From each school detailed information relating to facilities provided by the school, number of teachers, number of students, class-wise enrollment, attendance, details of students appearing in/passing in annual examinations and drop-outs *etc*. A set of structured questionnaires was prepared to carry out a survey of the parents of children enrolled in selected schools. From each school 10 parents were selected on stratified random sampling basis. The children were tested by asking oral questions in Hindi and maths.

Major findings: (1) A fairly high percentage of the respondents were literate. Among parishad and private school parents, literates were around 82% and 92% respectively. (2) The average land and holding size of the sample households was low - 1.27 and 1.77 acre among parishad and private school parents respectively. (3) The average size of the household among the parishad and private households was 5.11 and 4.84 respectively. (4) The average yearly income of parishad households worked out to be Rs 32,235 whereas it was Rs 40,377 among private households. (5) On an average, each parishad household was spending 4.7% of their total monthly expenditure on education of children. The corresponding percentage in the case of private households was 7.4%. (6) All Parishad schools which are old generally have poorly maintained school buildings. (7) In Parishad schools children had to sit on 'Taat-pattis' while the private schools have benches. (8) Almost all teachers of Parishad school are trained teachers who are drawing salaries and allowances in accordance to the pay scales of the state Government. On the contrary the Private schools manage their teaching with the help of untrained and low paid teachers. (9) In the case of the Parishad schools the financial burden on parents by way of fees is negligible. As against this the average monthly fees in the private schools of Gorakhpur and Saharanpur worked out to be Rs. 25.5 and Rs. 32.5 respectively. (10) Because of the incentive of getting free monthly rations children even less than 6 years of age are getting enrolled in Parishad schools rate in Class I in Parishad school is much higher than the corresponding rate in Private Schools and also as compared to the other classes of even Parishad schools. (11) The overall drop-out rates are not very high either in Parishad or Private schools. However, these rates are marginally higher in the case of Parishad Schools. (12) The percentage of children passing in the annual examinations is quite high in both Parishad and Private schools. However, the performance of the Private schools is relatively better when we compare it with that of the Parishad schools. (13) In the Parishad schools the pupil-teacher ratio was 65 and 58 in Gorakhpur and Saharanpur respectively. In private schools this ratio was 51 and 45 respectively for the same. (14) It was observed that the Private schools are laying a much greater stress on the all round development of the child. They have made school dress compulsory, sadly lacking in the Parishad schools. (15) The Parishad schools have no system of providing homework to the children. In the Parishad school, on the other hand, class work was regularly checked so also is home work regularly given and corrected. (16) In Parishad schools the average monthly expenditure per child worked out to Rs. 21.5 per month taking both districts together. The average per child expenditure in Private schools was much higher at Rs. 65.6 per month. (17) All private schools lay stress on regularity of students and teachers, on teaching and giving home work and on discipline. (18) Despite the fact that teachers of Private schools are untrained and poorly paid, the they are maintaining a quality of education, mainly because of more efficient administration. (19) All the parents whose children were enrolled in Private schools, were fully satisfied with the school but in the case of Parishad schools, the percentage of fully satisfied parents was only 30 per cent in Gorakhpur and 57 per cent in Saharanpur.

Implications and action points: 1. There is an urgent need to revamp the administrative machinery and ensure efficient management of the Parishad schools. It the Private schools can run efficiently with their limited resources the Parishad schools have the potential of achieving much greater success since they have much grater success they have much more resources and a sell developed infrastructure to back them up. {UP/06}

ARORA, SANTOSH. 1998. **A study of learning achievement and environment of child labourers working in the bangle industry**. Hindi. *UP: Institute of Advanced Studies in Education, Ruhailkhand University, Bareilly. Sponsored by UPBEP.*

Objectives: (i) To study the family background of child labourers engaged in the bangle industry, (ii) to investigate the educational situation of the child labourers, (iii) to undertake a comparative study of the educational standards of child labourers and normal children of their age, (iv) to investigate the reasons of children not attending school, (iv) to ascertain the educational achievements of child labourers, (v) to undertake a comparative study of the school-going child labourers and normal school-going children, and (vi) to study the relationship between the family background and educational achievement of child labourers.

Scope and geographical coverage: Firozabad District.

Methodology: The sample of the study comprised 107 child labourers including 32 children who were not working in the bangle industry in the 8-14 years age group. 75 of the 107 child labourers were those employed in the bangle industry and were not attending school; however, 30 of these children were attending school as well. The tools of data collection included *family background schedule, educational condition schedule,* and *achievement test* for classes III, IV and V in HIndi, mathematics and environmental sciences.

Major findings and implications: (1) The family income of about 40% child labourers was between Rs 1,500-2,000 and for the same percentage the income was between Rs 1,000-1,500. (2) 70% of the sampled child labourers had not been attending school at the time of the survey. The parents of 79% of these children were illiterate, 7% were middle-passed whereas the mothers of all these children were illiterate. (3) A concrete difference was found in the educational conditions of the child labourers and normal children. The educational conditions of the former was found to be unfavourable whereas it was average for the latter. (4) In the achievement tests, 30%, 44% and 62% of the children scored less than average in Hindi, Maths and EVS respectively. (5) There was a difference in the language abilities of the two types of students. Whereas the child labourers scored less in language use than general children, they had a good score in practical grammer. (6) There was close link between family income and educational achievement of students. It was observed that children whose parents were educated had scored better in the achievement tests than those whose parents were illiterate. (7) Children who had 1-4 siblings scored better than those who came from large families. (8) Based on the study, a number of suggestions were made for improvement in the condition of child labourers and for betterment of their educational prospects. {UP/07}

SHARAN, RAKA. 1998. A study of socio-cultural context of female school dropouts in Etawah district, UP. *Uttar Pradesh: Department of Humanities and Social Sciences, Indian Institute of Technology (IIT), Kanpur. Sponsored by UPBEP.*

Objectives: (i) To find out the socio-economic status and family back ground of female drop-outs, (ii) to understand the problems of dropouts in the context of school-situation *i.e.* to look into various reasons which impose limitations on school to retain students, (iii) to examine the role of government in an endeavor to bring improvement in quality of life of female-children, and (iv) to identify the possible typology of female school drop-outs (based on their socio-cultural attributes, since an overall assumption is that all female drop-outs were not a homogeneous category).

Scope and geographical coverage: Etawah, Jaswant nagar, Saifai and Ajeet Mall blocks .

Methodology: Within these blocks, five primary school were selected which had sizable number of girls enrolled in them. For the study, data was collect from: Schools and their teachers, parents of the drop out children, and the dropout children as main respondents. During the data-collection, it was noticed that school register did not mention much about the drop outs. Therefore it was decided to contact families who were residing within 3-km radius of the sampled schools. In all 15 schools have been converted in the study. A total of 76 parents are contacted for the data-collection purposes who were residing in the above blocks and whose daughters had stopped going to primary schools in the third category 94 drop who out girls the respondents of the present study. For data-collection, interview was main research instrument. Interviews were held with the help of semi-structured schedules: Parent-Schedule" for the parents of the drop outs, the "child Schedule" for the "Drop-outs and the "School Schedule" for the management and the staff of the schools.

Major findings: (1) The study suggests that female drop-outs of Etawah have come from all sections of population, rich and poor; Hindus and Muslims; labourers, farmers and service holders. (2) Most of the girls children who had left schools nourished a desire to continue education. (3) Parents, particularly among Muslims, showed hesitation in sending their girls to co-educational schools which most of the primary schools of Etawah were. (4) For not sending girls to school does not appear to economic but socio-cultural and the absence of will among the parents of girl-children. (5) More than 40 % of school drop outs mentioned that they left schools because of house-work or wage-work. (6) Almost all the children in the sample had left schools after passing their grades; also they had never failed in any class. (7) Most of the children had experienced difficulty in doing school work. (8) Another source of difficulty for the dropped out students was to get on well with their class work arising from their text books which lacked rural orientation. (9) The schools had hardly any extra-curricular activities for their children. Only 35% of child-respondents mention that they participated in indoor games. This also became a contributory factor for dropping out.

Implications and action points: 1. There is need to motivate parents. The curriculum should be relevant for the children in rural areas. School hours should suit the girls who have to attend to household works. Posting of city based teachers in rural schools should be avoided. {UP/08}

Mishra, V.S. 1998. **A comparative study of achievement of primary school student, with and without pre-primary education.** *UP: IPEM, Allahabad. Sponsored by UPBEP.*

Objectives: To investigate whether the: (i) primary school students had achieved MLL, (ii) achievement of the students with, and without pre-primary education was is different, (iii) school climate has effect on school enrollment, and (iv) socio-economic status is related to primary school achievement.

Scope and geographical coverage: Allahabad District.

Methodology: While achievement was the dependent variable, the independent variables were intelligence, school climate and socio-economic status. The sample consisted of school children from 19 schools in the district with pre-primary education and without pre-primary education studying in class V. The tests used for the study when based on MLL competencies

Major findings: (1) No significant difference was found in the achievement level of children with and without pre-primary education. (2) Most of the students from either group were not able to achieve the mastery level as their performance was found to be below average in both arithmetic and Hindi language tests. (3) There existed a positive correlation between the developed abilities (intelligence test score) and school achievement of the students in both the groups. (4) It was also evident that the WPP group had got a higher correlation in comparison to the PP group which was quite contrary to what had been expected prior to these results. (5) The two variables - school climate and academic achievement of the students were significantly correlated. There was a greater likelihood for those students to do well on achievement tests, who were taught in a more healthy, enriching and conducive school atmosphere as compared to the students coming from schools with a non-conducive and less-enriching environment. (6) It was observed that most of the pre-primary schools that were visited by the research-teams, were poorly equipped. Neither did they have a proper building, nor did they possess the basic amenities like clean drinking water, playground, clean surroundings *etc*. Also, they did not have adequate teaching material required. (7) Parents preferred to get the child admitted in class I rather than pre-primary class, because of the incentives given to students in primary school in the form of rice-distribution and scholarships.

Implications and action points: 1. Many pre-primary school education institutions did not have their own building and were running in one or two rooms. 2. Pre-primary school education programme should be non-formal because it was is not the stage of reading, writing and arithmetic. 3. To reduce the number of dropouts, wastage, and stagnation and to promote UEE, it must be resolved by the educationists and policy makers that before primary education all children of 3-5 years age group should be given nursery education so that they could make their rapport with the schools. 4. As most of the psychologists, educationists and policy-makers would agree that the pre-primary schools years of a child constitute the period of his/her maximum learning. Hence, intellectual programmes should be are directed towards promoting and strengthening the permeation of pre-primary and primary education, among all segments of the child population, ranging form 3-8 years of age. 5. For a pre-primary school programme to be effective, however, certain features appear to be important: careful planning and implementation, low child-staff ratio, high level of professional support, and moderate level of parent's involvement in the programme and a cognitively focused programme, designed within a clear framework of educational methods and goals. {UP/09}

MEHTA, LALIT MOHAN. 1998. **An evaluation of in-service teacher training.** *New Delhi: Media Research Group. Sponsored by UPBEP.*

Objectives : (i) To obtain feedback about the usefulness of the in-service teacher training programmes planned and organised by SCERT and conducted by DIETs, (ii) ascertain its impact on class-room teaching in primary school.

Scope and geographical coverage: Gorakhpur District.

Methodology: The study was based on the collection of primary data. The following research techniques were used in the evaluation: Observation, and Direct interviews. Research instruments-Observation schedules and direct interview schedules were designed, pre-tested in Gorakhpur district. Non-participant observation technique was used to observe the following: seating plan-interactive or traditional, extent of utilisation of low-cost teaching aids, teachers skills, level of interest among students and teaching-students interaction, use of new teaching-learning methods in classroom *etc*. The interviews were conducted with the following type of respondents: Teachers trained, master trainers, and district, block and NPRC officials. The study was conducted in Pipraich, Charganwa blocks of Gorakhpur district. School where two or more teachers were trained were selected. In all, 25 schools were selected in each block. Direct interviews were conducted with 137 teachers trained, five master trainers, and twelve district/block/NPRC officials. Non-participant observation technique was used to observed teaching in 133 classes.

Major findings: (1) 39% of teachers felt that the in-service training developed skills to use new teaching methods for Hindi; 55% of teacher opined that training aimed to make teaching-learning interesting for children, while, 22 % said that it aimed to improve pronunciation of Hindi words/ language. Only 12% teachers said that the training emphasised the use of teaching material/aids, while another 12% said that group formation method were emphasised to facilitate learning by students. (2) The perception about transmission loss due to Cascade III model was between 50-60 %. The course was of six days duration and made use of training package developed by SCERT. (3) Teachers trained were provided with a package each, which was to be used by them after the training in their schools for reference purpose. 48% teacher were frequently, 42% teachers were using it package sometimes while 10 % used it rarely. (4) Master Trainers: The study highlighted certain qualities of Master Trainers, such as: should have good command on the subject (64 %), should be good speakers *etc*. (5) 80% teachers felt that all master trainers were good. (6) Participation of Teachers: Six of 17 officials felt that more than 75 % of teachers took interest in the training while eight respondents felt that 50-75% of teachers took interest in the training. Duration: The duration of training was six days. Forty six % of teachers had opined that the duration was adequate, while 54 % felt it was inadequate. Most teachers felt that the training should be longer of 8-10 days. (7) 62% of classes observed were held in the classroom, while 18 % of classes were held in verandah. The remaining 20% of classes held in open courtyard. Students were sitting on a duree/taat patti in 80% of classes, while, they were sitting on benches in 5% of classes. Students were sitting on the floor/ground in 14 % of classes. (8) Number of Students Per Class: It was 64 in class I, 42 in class II, 39 in class III 36 in class IV and 34 in class V. (9) Teaching Methods Used: Despite higher emphasis on new teaching methods during training, use of new teaching methods was observed to be quite low. Teachers continue to use traditional lecture method (77% of classes), self reading (14%) and you- read methods (11%). Among new teaching methods, group learning method was used in 21% of classes, followed by activity based teaching (11%), competency based learning (6%), child- centered approach (3% and play-way method (3%). (10) Use of teaching Aids: Black-board was used only in 44% of classes observed. 21% of teachers had used black board extensively, while, 23% had used it to write a few difficult words. The overall quality of teaching was good in 56% of classes, while, it was average in 36% of classes. The quality of teaching was observed to be poor in 8% of classes. Pronunciation was rated good for 42% of the teachers and satisfactory for the rest 58%. (11) Improvement in knowledge and Teaching Practices: 61% teachers felt that in-service teachers training had helped in increasing their knowledge of Hindi language. 58% felt that training had helped in improving their knowledge about new teaching methods. Awareness of new teaching methods such as group-interaction and play-way methods and activity based teaching was high among teachers (over 80%) but their preference for actually using these methods in their classes was low (below 50%). {UP/10}

Agarwal, Reena. 1998. **A study of relationship between available resources availability of teaching learning aids and learning achievement of students at primary level**. Hindi. *UP: Department of Education, Luknow University. Sponsored by UPBEP.*

Objectives: (i) To estimate and analyse the following facilities available to students in *parishadiya* schools: (a) human resources such as head teachers, teachers, clerks, peons *etc*, and (b) physical facilities such as school building, furniture, OB materials, play materials *etc*, (ii) to ascertain and analyse the use of OB materials by teachers in these schools, (iii) to investigate the relationship between the achievement of students *vis-à-vis* the facilities available in schools, and (iv) to study the relationship between the use of OB material by teachers and achievement of students.

Scope and geographical coverage: Sitapur District.

Methodology: The sample of the study comprised of 143 students, 29 teachers and 20 *parishadiya* primary schools. Multi-stage stratified random sampling was used to select the sample. Among the tools used of data collection were *student interview schedule, teacher interview schedule, achievement test* in Hindi and maths for class V students.

Major findings and implications: (1) There was a shortage of teachers in *parishadiya* primary schools in the district. There were no female teachers in any of the schools. (2) Except for one school, the pupil-teacher ratio was very high. In 40% of the schools it was between 100-200 students per teacher and in 10% schools it was more than 200 students per teacher. (3) Most of the schools lacked drinking water, toilet and playground facilities. Most of the school buildings were in a poor condition. (4) Textbooks were available in only 15% of the schools. (5) All the schools had books for children and in 60% of the schools children could borrow them for home. (6) Students who had their own textbooks scored better in the tests other students. (7) In most of the schools alphabet and tables chart were available. However, charts on freedom struggle, first aid and *yoga* postures were available in only 20% of the schools. (8) During field observations, except for one, none of the teachers were found to be using OB materials. Most of them did not use them due to lack of time. In most of the schools, these materials were under the possession of the head teachers who did not encourage its use. (9) None of the students in the *parishadiya* schools in the district had achieved MLL in mathematics and Hindi. Only 1.4% of the students were progressing towards it. Students had a better level of achievement in Hindi than maths. (10) Students of rural areas scored better than their urban counterparts. (11) Most of the students had over 75% attendance. Such students scored better than those who had a lesser rate of attendance. (12) Teachers gave corporal punishment to students to maintain discipline. (13) Most of the teaching aids used by teachers were made available by the schools; very few prepared them on their own. (14) At the end, several suggestions were made for improvement of the quality of education in primary schools. {UP/11}

Sinha, Rashmi. 1998. **Impact of in-service teacher training programme (UPBEP) on social, emotional climate of classroom in the primary parishadiya schools of Sitapur district of Uttar Pradesh.** *UP: Ankur Yuva Chetna Shivir, Lucknow. Sponsored by UPBEP.*

Objectives: (i) To identify those components of classroom interaction and teacher behaviour that help in building positive social-emotional climate in the classroom, (ii) to collect classroom behavioural data to show whether or not there is difference between those teachers who had received in-service training and those who had not received the same, (iii) to know whether teacher training programmes produce difference in social and emotional climate of classroom and classroom interactions, and (iv) to suggest guidelines for INSET, focussed on improving the social emotional climate of classrooms.

Scope and geographical coverage: Rampur Mathura & Biswan blocks in Sitapur District and Dewa & Dariabad blocks in Barabanki District.

Methodology: A purposive sample of four blocks was chosen so that one roadside and another interior block belonging to each district was selected. From these blocks, purposive sample of 80 teachers and (in the age group 25-50) was selected. It included teachers who had attended in-service teacher training programme during the last 1-2 years (in case of Sitapur), and teachers who had not attended any in-service teacher training programme (in case of Barabanki). The following were the tools used for data collection: observation schedule, interview schedule, sentence completion test and pictorial projective test.

Major findings: (1) Impact of teacher training and other project-related treatments in Sitapur District had contributed to shift in teacher's attention to infrastructural and procedural structures. (2) Teachers seemed to be well informed about pedagogical principles of learning but attention was more on teacher's own satisfaction and classroom interactions continued to be teacher-centred. (3) Conversation was still being used only as a means of passing on information to the child or modifying his/her behaviour. Little acceptance of laughter while studying was found. (4) Teachers were found to have poor understanding of children with special needs, quiet children, slow learners, physically weak/feeble children *etc*. At the same time, understanding of naughty children appeared to have comparatively improved. (5) Classroom observation in both the districts revealed that there was greater emphasis on writing. Most teachers were taking more pains in ensuring that written work was complete and checked. (6) A shift in teacher's perception towards interaction among students was seen. Advantages of peer tutoring and peer learning have been realised by teachers (in Sitapur). (7) Opportunities given to children for creative thinking, self expression and organised play were negligible. (8) Praise and encouragement through affectionate conversation, smiles and touch was seldom given and was restricted to bright, neat and tidy children who were good in studies. (9) Approach towards girl child in Sitapur was found to be more caring, encouraging and teachers were found to give special attention to them. (10) Joyful and activity-based learning was perceived by teachers as a method of teaching/learning but little evidence of its regular practice was found. (11) Peer tutoring was found to be most preferred method of dealing with multi-grade situation. (12) Classroom organisation which included seating arrangements had improved. {UP/12}

WESTBENGAL

ISI. 1999. **Gender study for the DPEP in three districts (Murshidabad, Birbhum, Cooch Behar) of West Bengal: A project report.** *West Bengal: Indian Statistical Institute (ISI), Calcutta.*

Objectives: (i) To ascertain the differences in the learning achievement of boys and girls in class IV, (ii) to inquire into the factors affecting enrollment, attendance and dropout of girl students in class IV in a holistic manner, and (iii) to examine the attitude of the parents, teachers, panchayats and the local community on the above.

Scope and geographical coverage: Murshidabad, Birbhum and Cooch Behar districts.

Methodology: The required data was collected from 137 students (including 67 girls) of class IV chosen from seven schools in the three districts. At least two schools were selected from each district. Out of these, five schools were from rural and two from urban areas. Achievement tests were given in language and arithmetic. On the basis of observation during the baseline survey, difficult items in language and arithmetic were identified and written in separate test. In this way, 10 items were selected for vocabulary & one passage for reading comprehension and 16 items for arithmetic. Special attention was paid to the problems that students faced regarding their studies. Teachers and parents/guardians of students were also interviewed for the same. Discussions and group meetings were held with community leaders and panchayat workers. The baseline survey data for DPEP districts formed the secondary source of data. The responses were categorised as: blank or omission, only one correct answer, one wrong answer and multiple answers. The correct answers were used to find out the average score of students. The mean and standard deviation were calculated and t-test was used for comparison of means.

Major findings: (1) There was no community-wise significant difference in the learning achievement of the students except for a significant difference between General category and students from the Muslim community in vocabulary (language) in the district of Cooch Behar. (2) There was no significant gender difference in vocabulary and arithmetic learning, but there was significant difference in reading comprehension in Murshidabad District. (3) There was a significant gender difference in achievement among Muslim students. (4) In Murshidabad and Cooch Behar districts, Muslim girls had to learn Arabic which affected their formal studies whereas in Birbhum, school timings affected the attendance of the girl students. [Project duration: 1995-June 1999] {WB/01}

ISI. 1997. **Baseline survey of DPEP in West Bengal.** *West Bengal: Sociological Research Unit, Indian Statistical Institute (ISI), Calcutta.*

Objectives: (i) To assess the benchmark of the existing level of students' achievement in class II & IV in language (vocabulary & passage) and mathematics (arithmetic), (ii) to use the study as a base for planning area-specific interventions in order to accelerate the pace of a qualitative UEE, and (iii) to help in monitoring DPEP and subsequent assessment survey by DPEP in the state.

Scope and geographical coverage: Cooch Behar (north Bengal), Murshidabad, Birbhum (central Bengal), Bankura (south-west Bengal) and South 24 Parganas (south Bengal) districts.

Methodology: To collect the required data, a sample of about 40 schools in each district and 30 & 20 students of classes IV & II respectively from each school was randomly selected. Teachers in the selected schools were also covered, following NCERT guidelines. Structured questionnaires and tests with multiple-choice objective type questions for children and interviews with teachers were the tools used for data collection. In the test, correct answers were considered as indicators of retention of learning in language and arithmetic. The calculations were shown district-wise, gender-wise *etc.* The comparative pictures of dropout students between first-generation learners (FGLs) and others were shown district-wise and gender-wise with reasons. Simple percentages were calculated on the basis of correct answer and ANOVA test too was used.

Major findings: (1) In Cooch Behar, FGLs lagged behind in vocabulary test. However, in arithmetic, it was the urban students who were trailing. (2) In 'passage' test (reading comprehension), performance was consistently low among all the groups. (3) In Murshidabad, urban students and Muslim girls lagged behind in all the tests. (4) In Birbhum, rural students did not fare well in language test but in arithmetic, the urban students performed badly. (5) In particular, females were lagging behind in vocabulary and arithmetic tests. Also, Muslims students performed poorly in all the tests. (6) In Bankura, urban students and students from non-cultivating families in the villages fared poorly in all tests. (7) In South 24 Parganas, rural students, particularly females fared below the mark in language tests. Students belonging to the General category/Hindu caste fared poorly in all tests. Students from cultivating families in the villages fared poorly in the 'passage' test. {WB/02}

Sampark & WBDPEP. 1999. **Survey of primary schools in the selected non-DPEP blocks.** *Calcutta: SPO.*

Objectives: (i) To ascertain the status of infrastructure in primary and upper primary schools and its relationship with school efficiency, and (ii) to suggest measures for remedial intervention.

Scope and geographical coverage: Nadia, Howrah, Hooghly, Burdwan and North 24 Parganas (non-DPEP districts).

Methodology: The study (a survey) covered 34 blocks in the five districts. The tool of data collection was a standardised questionnaire - covering issues of infrastructural facilities in the primary and upper primary schools of the concerned districts - to ascertain the educational status of the schools. The study also employed school photography to ensure documentation of the physical infrastructure of the respective schools.

Major findings: (1) The overall enrolment figures were as follows: North 24 Parganas (10 blocks; 5,76,847), Burdwan (7 blocks; 2,79,854), Hooghly (3 blocks; 1,59,370), Howrah (6 blocks; 3,26,843) and Nadia (6 blocks; 3,88,615). (2) Girls' enrolment was observed to be higher than that of boys' in Hooghly (50.8%) and Howrah (51.9%) districts. In the remaining three districts, it was lower, the lowest being in Nadia (39.23%). (3) The overall percentage of attendance of girls was high in the districts of North 24 Parganas (84.2%) and Nadia (83.6%). Overall though, it was lower than that of boys in both the districts. (4) Schools housed in proper buildings had higher enrolment rates. Open-air schools had moderate enrolment. (5) Unequal distribution of male and female teachers was glaring in the district of Burdwan with only 15.7% being female teachers followed by Nadia at 15.8%.

(6) The overall school-teacher ratio was highest for North 24 Parganas (1:5.2) and lowest for Burdwan (1:3.7). (7) Percentage of untrained male and female teachers was highest in North 24 Parganas (25.5 and 20.35 respectively). (8) The pupil-teacher ratio (PTR) was highest in Nadia (84:1) followed by North 24 Parganas (68:1). In the other three districts it was more than 50. (9) Infrastructure in the vast majority of schools needs upgradation on a considerable scale. A major percentage of schools surveyed had either one (21%) or two (23%) classrooms. About 50% of the schools did not have a *pucca* roof, most schools had provision for horizontal expansion and a moderate percentage needed drinking water facilities (14%). (10) It was observed that better infrastructure in schools contributed positively to school efficiency.

Implications and action points: 1. Schools with a very high PTR will be identified for remedial action. {WB/03}

WBDPEP. 1999. **Baseline assessment survey.** *Calcutta: SPO.*

Objectives: (i) To measure the average performance of students in Language and Mathematics at the end of class I and III, (ii) to compare the differences in achievement levels with regard to gender, social groups and other social areas, (iii) to study the influence of variables in and outside schools on students' achievements, and (iv) suggest suitable remedial strategies.

Scope and geographical coverage: Purulia, Maldah, North Dinajpur, South Dinajpur and Jalpaiguri districts.

Methodology: The sample of the study comprised of 10% of the total Government schools in the districts selected through multi-stage stratified random sampling. The questionnaires were designed as per NCERT guidelines. The achievement levels and dispersions were explained in terms of Mean and standard deviation percentage.

Major findings: (1) The mean achievement levels in both the subjects for class I students was observed to be the lowest in Malda and highest in North Dinajpur. For class III, it was observed to be the lowest in Malda and highest in South Dinajpur. (2) The gender differences in achievement levels in class I were observed to be the lowest in South and North Dinajpur respectively. However, this was high in Malda and Purulia. (3) The gender-wise performance in class III was comparatively uniform for all the districts except for South Dinajpur and Maldah. (4) An acute difference in the achievement levels of class I students in rural and urban areas of Purulia, Maldah and Jalpaiguri districts was observed. However, this was observed to be low in North Dinajpur and South Dinajpur. (5) The difference in the achievement levels of class III students was observed to be the highest in South Dinajpur, Purulia, Malda and Jalpaiguri. Urban students performed better in these districts. (6) In North Dinajpur, rural students fared better than their urban counterparts. (7) Special focus group - SC/ST - students had the lowest achievement levels in Maldah. However, in North Dinajpur, girls belonging to the SC/ST category performed better than their counterparts in 'Others' category. (8) SC/ST students of the urban areas fared better than their rural counterparts. (9) The study revealed that, in general, girls had lower achievement levels than that of boys. (10) The pupil-teacher ratio was above 50, except in Purulia; however, this was less than 40 in urban areas. (11) The average number of teachers in a school in rural areas was 3 in Purulia and 2 in North Dinajpur districts respectively, whereas in urban areas it was between 3 and 6. (12) On an average, children across all the districts had more or less similar achievement levels. (13) Students using a similar language both at home and in school had higher achievement levels than those using different languages in the two situations. (14) It is observed that since no guidance is given to the child at home, student's achievement does not show much variance in the context of his having literate or illiterate parents. (15) Children from the different socio-economic background had similar achievement levels. {WB/04}

WBDPEP. 1999. **Mid-term assessment survey.** *Calcutta: State Project Office (SPO).*

Objectives: To ascertain the achievement levels of class I and class III students in language and mathematics.

Scope and geographical coverage: Bankura, Birbhum, Cooch Behar, Murshidabad and South 24 Parganas districts.

Methodology: Fifty schools were selected through stratified random sampling method covering urban and rural areas of each district. Some common competencies (similar to those administered during the BAS) were included in the MAS while a few new competencies were added as well. However, the assessment of dropout children was done away with (unlike in the BAS). Questionnaires were simplified this time.

Major findings: (1) In most of the districts, class I students performed satisfactorily and showed improvement in language and Mathematics. (2) In language, students of Bankura and Birbhum attained more than 80% marks. However, students of Murshidabad and South 24 Parganas could not attain the same levels. (3) Students of Cooch Behar lagged far behind in attaining the mastery levels, scoring only 53.9% marks. (4) In Mathematics, students of Bankura, Birbhum and South 24 Parganas reached the mastery level attaining 88.7%, 84.5% and 82.9% marks respectively. (5) Students in Cooch Behar lagged far behind attaining only 64.7% marks. (6) Similarly, students in Murshidabad could score only 73.9% marks. (7) Majority of the students in Bankura, Birbhumn, Murshidabad and South 24 Parganas scored between 70-100%. However, in Cooch Behar students' achievement was in 30-70% range. (8) Class III students registered an improved performance though less than mastery levels in both Language and Mathematics. (9) Students of Cooch Behar performed poorly obtaining the following mean achievement scores: 38.3% in Language and 30.8% in Mathematics. (10) Students of Bankura could cross only above 60% marks in both the subjects, those in Birbhum attained close to 60% marks and students of Murshidabad just managed to cross 50% marks in both the subjects. (11) However, students of South 24 Parganas scored just 52.7% marks in language and only 48.8% in Mathematics. (12) Differences in achievement levels of boys and girls in class I in Language reduced. Only in South 24 Parganas there was not much reduction in the gender difference but it was still below 5%. (13) Difference in achievement levels of boys and girls in Mathematics of class I was found to be low for Birbhum, Cooch Behar and Bankura. However, it remained high (above 5%) in Murshidabad and South 24 Parganas. (14) In class III, differences in achievement levels of boys and girls in Language were low for Birbhum and Murshidabad (below 1%). (15) In Mathematics, the difference was more than 5% in Bankura and less than 1% in Birbhum and Murshidabad. In Cooch Behar and South 24 Parganas the reduction in gender disparities was very insignificant. (16) But for Bankura, no other district could succeed in reducing rural/urban differences in achievement levels. In class III, strikingly, rural students of Bankura and Cooch Behar performed better than their urban counterparts. (17) In Murshidabad and Birbhum, SC students of class I performed better than Other students. In Birbhum, ST students too performed better than Other students. In language, SC and ST students scored better than Other category students. (18) In class III, the difference in achievement levels in Language was in favour of SC students in Birbhum, Murshidabad and South 24 Parganas and in favour of ST students in all districts except Bankura. In Mathematics, significant differences remained for ST students. (19) Facilities for teaching-learning and educational level of parents influenced achievement levels to quite an extent. (20) A comparison of the BAS and MAS findings revealed that except in Cooch Behar, there had been significant improvement in achievement levels of class III students. However, in South 24 Parganas, there was a decline in achievement levels in language over BAS levels. (21) There was an increase in the difference in achievement levels of boys and girls. However, only Birbhum and Murshidabad districts showed progress. Similarly, differences in achievement levels between SC and Others and ST and Others had increased compared to BAS.

Implications and action points: 1. Special strategies were needed to improve the competencies of class III students in South 24 Parganas in Language. 2. There was a need for intensifying the pedagogical and community mobilisation strategies. {WB/05}

WBDPEP. 2000. **A correlation study on the impact of students' attendance on transition pattern in a cohort.** *Calcutta: SPO.*

Objectives: (i) To attempt to draw a relationship between students' attendance and transition pattern in a cohort in view of the fact that regular attendance of students in school has been regarded as a major factor contributing towards higher retention, and (ii) to assess the impact of attendance pattern on some major issues in Primary Education like promotion, dropout and repetition rates.

Scope and geographical coverage: Bankura, Birbhum, Murshidabad and South 24 Parganas districts.

Methodology: The sample of the study comprised 98 schools involving 6,500 students in the above DPEP districts. 20-24 schools were randomly selected from each district. The number of schools in each district was identified by the size of the district and the number of subdivisions in it. Cohort method was employed to study the performance of students in each school. A set of three cohorts - for consecutive years - was taken in each school at the beginning of 1993, 1994 and 1995 respectively, as grade I (new) entrants. In case of grade repeaters, the cohort was traced for the Ever Completion Rate (ECR) of primary education for six years only, beyond which the ECR is considered to be more than 6 years. Accordingly, a worksheet on admission and attendance registers was prepared. Field Investigators, adequately trained for the purpose, collected the required data from sampled schools.

Major findings: (1) Students having high attendance during the academic year had a 100% promotion rate across all grades in each of the four districts. (2) Students with lower attendance had higher incidence of repetition, they rarely completed Primary Education and ultimately dropped out. (3) Attendance percentage of girls and boys was more or less same with negligible difference though the total enrolment of girls was lower than that of boys. (4) Girl students tended to drop out though they recorded high attendance in the upper grades especially in Bankura, Birbhum and Murshidabad districts. (5) In South 24 Parganas District, a lesser dropout rate in the sampled schools was observed. (6) Attendance of SC and ST students was observed to be very low in some areas in Bankura and Birbhum districts, where repetition rate was high among these students. (7) Some school-specific features were attributed for the overall low attendance in such schools. (8) The study revealed that there was a direct relationship between high attendance of students and higher achievement levels.

Implications and action points: 1. A necessary action plan will be developed for schools identified with low school efficiency since the study suggests that that low attendance accounted for high educational wastage. 2. A full-fledged study covering all schools in the districts has been suggested to identify schools having low attendance among students in the districts. These schools would be then taken up as a sample for an in-depth study of the impact of student and teacher attendance on school efficiency. {WB/06}

WBDPEP. 2000. **Critical analysis of DISE data.** *Calcutta: SPO.*

Objectives: To identify the possible intervention areas at the block-level on the basis of DISE data.

Scope and geographical coverage: Bankura, Birbhum, Murshidabad, Cooch Behar and South 24 Parganas districts.

Methodology: DISE data on nearly all variables for each of the blocks in all the districts were analysed for the period 1997-98 to 1999-2000. The principal component analysis was applied for finding out the major influencing variables. A correlation and regression analysis was adopted to highlight the inter-relationships among the extracted different variables using statistical software.

Major findings: (1) Bankura, Birbhum and Cooch Behar were observed to be the core emphasis districts with regard to enrolment (Total and girls') per school in class I. (2) Districts such as South 24 Parganas and Murshidabad had more teachers to be trained in comparison to the other three districts. (3) There was a considerably low percentage (not more than 23%) of female teachers in all the DPEP districts. This was lowest in Bankura (1'3.3%) and highest in South 24 Parganas (22.9%). (4) Murshidabad and South Pargana districts had the highest and lowest number of schools with no classrooms respectively. (5) South 24 Parganas was observed to be a core emphasis district as far as number of classrooms to be repaired was concerned. (6) On an average, in the DPEP districts: there were 4 blackboards, 1 chair, 2 desks and 2 tables, 3 teachers (including two trained teachers) per school; one classroom per school needed major repair; 61 students were enrolled in class I, 41 in class II, 37 in class III and 32 in class IV per school and there were average 225 working days per school. (7) Number of classrooms, number of rooms to be repaired, number of blackboards, total number of teachers were the main variables, explaining 75% variability to predict enrolment (both, Total & girls'). (8) Girls' enrolment needed to be raised in all the districts. (9) The pupil-teacher ratio (PTR) was of great concern in South 24 Parganas.

Implications and action points: 1. Bankura District needed appropriate strategies to tackle the issue of girls' enrolment on a priority basis. 2. DISE data for Birbhum was found to be inconsistent and needed rectification. 3. High repetition rate in the lower grades of primary education was observed in Cooch Behar. This needs to be probed through further studies. 4. Murshidabad had the highest number of schools without classrooms; this needed to be looked into. 5. In South 24 Parganas, high PTR was a matter of concern. 6. Teacher training was needed for untrained teachers. {WB/07}

WBDPEP. 2000. **Economic investment and primary education: A study on the quantum of financial investment made by the family on per child in primary education.** *Calcutta: SPO.*

Objectives: To assess the quantum of financial investment made by the family on each child for his primary education. The study focussed on the following parameters: (i) total expenditure made by the family on each child to complete Primary Education, (ii) the percentage of total family income involved in the process, (iii) the relationship between total investment made on Primary Education and its relationship with the achievement patterns, and (iv) differences in the investment pattern vis-à-vis gender, caste and age differences.

Scope and geographical coverage: Bankura, Birbhum, Murshidabad & South 24 Parganas districts.

Methodology: The study was conducted in 58 selected schools involving families of 693 students at various grades of primary education in these schools. Initially three schools were randomly selected from each subdivision of the districts. The number of schools hence varied for each district, depending upon the number of subdivisions in it. Through systematic sampling, 3 students from each grade, whose family was to be interviewed for the study, were selected. The required information was collected through questionnaires and informal interviews of the respondents by trained field investigators.

Major findings: (1) Most financial investment in Primary Education is made on private tuition, exercise books and other stationery items. (2) Private tuition: (a) About 75% of the primary grade students enrolled in schools take private tuition, (b) students taking private tuition spend more on stationery items, (c) expenses on private tuition varied area-wise and grade-wise, with more investment in the higher grades, (d) in urbanised areas a higher rate of private tuition in the upper primary grades was observed, and (e) expenses on exercise books and other stationery items was more or less same, area-wise. However, a difference in expenditure on the same items was observed, grade-wise. There was higher expenditure in the upper grades. (3) Additional investment on education of the girl child is generally not made; moreover, even if it is made, expenses are comparatively less. (4) In case of the girl child, a moderate percent of them continue to work (mostly engaged in household chores since the mother goes to work) and study simultaneously without much scope for tuition, or for that matter, even study time at home. (5) Children were also employed in seasonal labour, though this was observed to be district-specific, to augment the household income, which in turn adversely affected the total attendance of the child during the academic year. Here also, the opportunity cost was seasonal. (6) Among the SC, there is an urge for upward mobility, and accordingly, financial investment in Primary Education is made for better achievement. The investment figures appear to be encouraging since additional expenses were incurred over the incentives already available to them. (7) In most of the districts, an expenditure of more or less 12% of the total family income, except in the case of South 24 Parganas (where it was around 17%), was observed. (8) In Murshidabad District, all girls were being provided with two sets of school dresses as an added incentive for girl's education. (9) The study reveals that financial investment is not a major factor for lack of universalisation of Primary Education. (10) The family is willing to invest an additional amount in Primary Education to guarantee an internal rate of return. (11) Since the family is the most important unit, community-level mobilisation is vital for universalisation of Primary Education. (12) The family did not want to forego the opportunity cost and yet wanted the child to acquire Primary Education.

Implications and action points: 1. In certain identified areas, alternative arrangements (such as an Evening school) to accommodate school timings for working children could be made so that the opportunity cost is not foregone by parents. 2. School environment and classroom teaching needs to be made attractive and effective so that learners and guardians were freed from the burden of additional investment in private tuition. {WB/08}

WBDPEP. 2000. **School efficiency and number of pupil years covered in completing primary education**. *Calcutta: SPO.*

Objectives: Broadly, the study looks into the number of years actually taken by the student in completing Primary Education. Specifically, the study: (i) attempts to calculate the percentage of students completing Primary Education in four years' time (CRF), (ii) tries to assess the educational wastage by, (a) studying the Ever Completion Rate (ECR) years for grade repeaters, and (b) studying the overall & grade-wise dropout rates, (iii) examines performance of students vis-à-vis gender, caste and age groups, and (iv) estimates school-wise efficiency in imparting Primary Education.

Scope and geographical coverage: Bankura, Birbhum, Murshidabad and South 24 Parganas districts.

Methodology: The sample of the study comprised 98 schools involving 6,500 students in the above DPEP districts. 20-24 schools were randomly selected from each district. The number of schools in each district was identified by the size of the district and the number of subdivisions in it. Cohort method was employed to study the performance of students in each school. A set of three cohorts - for consecutive years - was taken in each school at the beginning of 1993, 1994 and 1995 respectively, as grade I (new) entrants. In case of grade repeaters, the cohort was traced for the ECR of primary education for six years only, beyond which the ECR is considered to be more than 6 years. Accordingly, a worksheet on admission and attendance registers was prepared. Field Investigators, adequately trained for the purpose, collected the required data from sampled schools.

Major findings: (These pertain to Murshidabad only. Data analysis in rest of the districts was yet to be completed). (1) Nearly 55% of the children completed Primary Education in four years time (*i.e.* CRF=55), about 20% in five years' time (*i.e.* ECR=5) and approximately 5% in six years time (*i.e.* ECR=6) respectively. (2) 20% of the children were found to be dropping out at various grades. (3) The dropout rate was higher in the lower grades and lower in the higher grades of Primary Education (*i.e.* 12% in class I, 5% in class II, 3% in class III). (4) Dropout and repetition was observed to be higher among boys. (5) Though girls had lower enrolment rates, they had a comparatively lower dropout and repetition rates. (6) Educational wastage was observed to be high among schools with big cohort size. PTR for these schools needed to be identified, which could be the possible reason for educational wastage in primary education. (7) Repetition rate was high among Muslim children who registered a poor performance in South 24 Parganas. The ECR was more than 6 among this group. (8) Not much difference was observed in the performance of SC students, though their participation and performance was higher than Others category in Bankura. (9) Schools with huge enrolment have a higher rate of educational wastage in the form of high dropout and repetition.

Implications and action points: 1. Schools, with low efficiency, have been identified as schools performing below 50 in CRF. 2. Similar study is suggested in all the schools of all the districts to identify schools with low efficiency. 3. Necessary strategies must be developed in a school-specific manner to strengthen the overall school efficiency at the district level. {WB/09}

WBDPEP. 2000. **Statistical analysis of the achievement level for the DPEP and non-DPEP district of West Bengal.** *Calcutta: State Project Office (SPO).*

Objectives: (i) To ascertain the differences in the mean achievement levels of students of DPEP, and non-DPEP districts in Mathematics and language (Bengali).

Scope and geographical coverage: Bankura, Birbhum, Cooch Behar, Murshidabad and South 24 Parganas (DPEP districts) and North Dinajpur, South Dinajpur, Maldah, Purulia, Darjeeling (Siliguri), Nadia, North 24 Parganas, Burdwan, Hooghly, Howrah, Midnapore and Calcutta (non-DPEP districts).

Methodology: District Primary Schoo Council (DPSC) data was used for a comparative analysis of DPEP and non-DPEP districts. The set of data for each district in a circle-specific manner comprised of number of students appeared, frequency of distribution of students according to their achievement level, and classification of the circles into categories of weak, borderline, below average, above average and strong in each subject. Due to non-availability of data, Jalpaiguri and Siliguri could not be covered in this study. On the the available data, statistical analysis was carried out to draw a comparison of DPEP and non-DPEP districts. Means of achievement scores in both the subjects were calculated and statistical tests were employed for testing equality of variances.

Major findings: (1) In both the subjects, the mean achievement level of students of non-DPEP districts was higher than that of their counterparts in the DPEP districts. (2) The subject-wise achievement levels in the DPEP districts reveal a similar pattern, with equal scores in both subjects, except for Murshidabad where the students scored 42.7 in Mathematics and 24.9 in Bengali. (3) In Cooch Behar and Murshidabad, students registered a low performance in both the subjects with scores below the mean achievement levels. (4) In the non-DPEP districts, students' performance in arithmetic was found to be better than in language in all the districts. (5) In arithmetic, the mean achievement level scores were above 50% in all the non-DPEP districts. {WB/10}

WBDPEP. 2000. **Subject-wise study of achievement in DPEP districts.** *Calcutta: SPO.*

Objectives: (i) To ascertain the subject-wise and area-wise achievement levels of students in the DPEP districts at the end of class III, and (ii) to identify weak areas in Language and Mathematics and suggest remedial measures for the same.

Scope and geographical coverage: Bankura, Birbhum, Cooch Behar, Murshidabad and South 24 Parganas districts.

Methodology: The study was based on MAS data. The MAS conducted at the end of class III had 65 questions in Language and 40 questions in Mathematics. The list of questions were regrouped for both the subjects to form certain categories, whereby each question could be placed under any one category. Thus, the achievement in each category was traced for all the DPEP districts and weak areas within the subjects were identified.

Major findings: (1) Cooch Behar was found to be lagging behind in all the categories of both the subjects. (2) Units of measurement and understanding fractions were observed to be the weak areas in all the districts. (3) Students had low level of comprehension in Language in all the districts.

Implications and action points: 1. Teacher training on identified hard spots in both mathematics and language was required to strengthen the understanding level of students. {WB/11}.

Ed. CIL

PANCHAMUKHI, P.R. & DEBI, SAILABALA. 1999. **Costliness of primary education: An enquiry into the private and social cost of primary education.** *Karnataka: Centre for Multi-disciplinary Development Research, Dharwad.*

Objectives: (i) To identify different component costs of primary education, both private and social (including operating and capital costs) of all social groups of the population and gender, (ii) to estimate the average cost of primary education, both social & private (including opportunity cost), its variation among different socio-economic groups of the population and sex-wise, and (iii) to evaluate the significance of the determinants of each item of private cost for each group of population and gender-wise.

Scope and geographical coverage: Rayagada and Cuttack districts in Orissa.

Methodology: The data for this study was collected from 40 primary schools in these districts and 1,200 households who had children attending these schools, following multi-stage random sampling. From each district, two blocks, one having the highest and other, the lowest female literacy rates, were selected. Next, two villages from each block (*i.e.* a total of eight villages), keeping in mind the same parameter as above, were taken. From them, 800 households were selected. In the urban areas, data was collected from 200 households each in Cuttack and Rayagada towns. To estimate private cost, information was collected from the students/parents on different items of expenditure like fees, books, uniforms, travel, private tuition *etc* by administering a pre-designed schedule. The data on expenditure incurred by the institutions (*i.e.* schools) was collected from the school records and other official sources in order to calculate the institutional cost of primary education. This was estimated on the basis of the data collected on different items like salary, purchase of equipment, furniture, teaching-learning materials *etc*. Children from rural areas and lower economic strata were generally significant contributors to the family income, hence time of these children was valuable for their family members. Accordingly, the study included the opportunity cost of primary education, which was computed on the basis of the time spent by a child in such economic activities/earnings. The direct private cost was estimated by calculating the expenditure incurred by parents and indirect private expenditure was estimated keeping in mind the amount of time spent by the child in school. The social cost was estimated by summing up the private (both direct and indirect) and institutional cost. In order to examine the influence of the determinants of private expenditure, multiple regression model was fitted to the data. The regression results helped in assessing the relative significance of the socio-economic characteristics of the households in influencing different items of the cost across social groups of population. The choice of the two districts was deliberate keeping in mind their contrasting characteristics *viz* Rayagada had the lowest rural female literacy and the highest concentration of tribals which was just the reverse in case of Cuttack. The sample had no private school, hence private costs were not estimated for them.

Major findings: (1) The gender disparity in literacy rate in Rayagada, especially in rural areas, was higher compared to Cuttack among the sample population. In rural Rayagada, the difference in literacy rate between male and female was about 34 percentage points (PP) against 13 PP in urban Rayagada. Similarly, in rural Cuttack this disparity was 16 PP against 5 PP in urban Cuttack. (2) In urban areas, enrolment of male and female pupils were comparable, though there was a gender disparity in the rural areas. Also, there was a significant difference in the enrolment between rural and urban areas. Across social groups, the disparity in enrolment between SC & non-SC, ST & non-ST and SC & ST was also very high. Similar pattern was found in grade attainment by children. (3) Among the determinants of enrolment, parents' education, occupation and economic status exerted a strong influence. More significantly, mother's education influenced the girl child's enrolment. Gender disparity in enrolment was less among economically better off families. The distance to school adversely affected the enrolment of girls. (4) Household expenditure on education indicated that the average expenditure in Rayagada was below the overall average, while the expenditure in Cuttack was above it. In both the districts, household expenditure was highest among forward caste families and lowest among SC population. The expenditure in urban areas was higher than that in rural areas for all social groups. The average household expenditure for a child came to Rs 845 per annum which seemed to be quite substantial. (5) Of the total expenditure on education by households, more than 40 per cent was spent on private tuition in both rural and urban areas. The relative proportion of this expenditure was higher for girls perhaps because parents preferred home tutors for them which was costlier. (6) Class-wise expenditure incurred by the households indicated that it moved in unison with the class of study. Expenditure on girls was always found to be less than boys in both the areas. However, expenditure on girls in rural areas after class IV declined all of a sudden which did not happen in the case of their counterparts in urban areas. This implied that at higher age, the former tended to drop out from schools owing to socio-cultural reasons. (7) Households in rural areas spent as little as 3% of their income on education; the maximum for it was 22%. The corresponding figures in the urban areas were 7% and 31% respectively. In Rayagada, the backward district, a maximum of 18% was spent on education while it was 31% in Cuttack. (8) Marginal propensity to consume for education in households was 0.027 per cent implying that education was not a basic necessity on a given income. The income elasticity for education was estimated at 0.92% which confirmed that education expenditure rose less than proportionately with rise in income of the households. (9) The estimated earnings foregone by a child indicated that about 73% of the total private cost constituted the opportunity cost (*i.e.* 75% and 72% in Rayagada and Cuttack respectively). The foregone earnings among the SC/ST and the rural areas seemed to be quite high. (10) Household expenditure on education was higher in Rayagada than Cuttack, whereas it was the reverse in the case of institutional expenditure. (11) Nearly 81% of the students enrolled in primary schools (*i.e.* 99% in rural and 61% in urban areas) were getting subsidy which came to about Rs 71.61 per annum. This was higher among ST in rural areas and lowest among the forward caste. The amount of subsidy declined with increase in income of the households with the exception of girl children. (12) Schools in Cuttack had better facilities than those in Rayagada. Allotment of funds to schools by the government indicated that it was closely linked to the age of the school and pupil-teacher ratio. Schools which were over 50 years old received more funds than the less-aged schools. (13) Government schools in rural areas were the least costly. The variable per capita income and assets were found to exercise a positive influence on expenditure while the birth order of a child and sex had negative influence on expenditure. Better off families spend more on private tuition, books and uniforms. (14) The teacher's salary (variable) constituted about 77% of the total institutional cost. In Cuttack this varied from 80-92% whereas in Rayagada it varied from 65-77%. (15) The proportion of direct private cost varied between 21-37% of the total social cost while the share of institutional cost in social cost varied from 63-79%. However, on adding the earnings foregone in the proportion of private cost, it varied from 57-70% of the total social cost and the proportion of institutional cost varied from 32-43%.

Implications and action points: 1. Awareness campaigns through street plays, puppet shows or documentary films in the regional/tribal dialect should be organised to bridge the gender gap in enrolment and expenditure on education. 2. Need exists for provision of more female teachers, separate toilets for girls in schools and schools within the village *etc*. 3. In order to achieve the goal of UEE, more efficient utilization of the existing resources was important. {ED/01}

MOHITE, PRERNA & DESAI, DEVAL. 1999. **Evaluation of MLL in two districts of Gujarat.** *Gujarat: Department of Human Development and Family Studies, Faculty of Home Science, M.S. University, Baroda.*

Objectives: (i) To know the views and opinions of primary school teachers (*i.e.* of classes I to V) on MLL in urban and rural schools in two DPEP districts, (ii) to understand the classroom environment in all the classes of five selected schools in urban & rural areas keeping in mind their (a) building construction, (b) teaching materials and resources, and (c) teaching-learning pedagogy, and (iii) to assess the basic competencies of the students of primary classes (*i.e.* I to V) in maths, language and environmental studies of both urban and rural schools.

Scope and geographical coverage: Panchamahal and Vadodara districts.

Methodology: The sample of the study comprised of 36 schools (34 urban and two rural) selected randomly, 180 teachers (including 170 teachers from urban schools) of classes I to V, 300 students (including 120 students from rural schools) and classroom observations of 15 urban and 10 rural schools. The urban schools were selected from among the 136 schools run by the municipal corporation in Vadodara district; the rural ones from Halol taluka of Panchamahal. The tools used were: an interview schedule comprising of 18 questions, mostly open-ended, for teachers to asses their conceptual understanding of the MLL programme *etc*; a classroom observation checklist which was a modified version of the one devised by Mistry, V. et al (1985) comprising of 11 major sub-sections, of which the major components were: (a) physical features of the classroom, (b) materials and equipment used, and (c) teaching-learning pedagogy and; basic competency tools in the three subjects for all the five grades for assessing the level of achievement in MLL of children. All the tools were pilot-tested on smaller samples and necessary modifications made. The observation checklist and responses of teachers, which was categorised into: conceptual understanding, training for & implementation of MLL were analysed in terms of frequencies and percentages. To assess the competencies of children, the same method was used to determine their MLL achievement in each subject, and in terms of gender & rural-urban differences. Besides, the level of learning performance of children who did not reach MLL was analysed.

Major findings: (1) Rural schools lacked basic facilities essential for teaching-learning process. (2) Nearly all teachers practised the teaching-learning pedagogy of 'chalk and talk'. (3) A majority of teachers lacked the understanding of MLL. (4) Overall (*i.e.* across classes I to V) MLL was achieved only by 36.6% of the children with those in urban areas performing slightly better (*viz* urban: 38.8% and rural: 33.3%). (5) The maximum acquired competencies were in environmental studies and the least in language. (6) Amongst the children not achieving MLL, it was observed that they (girls, in particular) found maths to be difficult; however, they performed better in environmental studies.

Implications and action points: 1. In-service teaching programmes should be organized periodically and on a regular basis. These, in particular should focus on building teachers' capacities in effective teaching-learning pedagogies. 2. The need existed for some kind of forum/platform where teachers could interact on their academic programmes. There should be a resource person to guide them on their day-to-day problems so as to ensure an effective functioning. 3. Provision of basic facilities such as black-board, charts of key concepts, teaching aids and kits was essential for effective teaching-learning. 4. Greater emphasis should be placed on effective teaching of basic mathematical concepts and language activities. {ED/02}

GAUTAM, R.S.; JOSHI, SANDEEP & SINGH, YATINDRA. 1999. **Role of panchayati raj and teacher accountability in Ujjain (SC), Ratlam (ST) and Shajapur (General) districts of Madhya Pradesh.** *MP: Madhya Pradesh Institute of Social Science Research, Ujjain.*

Objectives: (i) To investigate the role and functions of panchayati raj (PR) system in MP in ensuring teacher accountability, (ii) to investigate the role of panchayati raj institutions (PRIs) in enhancing teacher accountability, motivation, improvement in schools, participation of all sections of the community in schooling *etc* and to understand the role played and power exercised by different PRIs and VECs on school functioning and management, (iii) to identify the changes that have taken place following introduction of the PR system; to specifically look at the efforts put in by the PRIs for school improvement and for ensuring participation of the weaker sections of population, (iv) to find out the perceptions of teachers, parents and educational administrators on the effectiveness and the changes brought about by the new system, (v) to identify the visible changes in the pattern of enrolment, retention, dropout and the learning outcome of children in its wake, (vi) to critically analyse the functioning and capacity of the new system, identify its strengths and weaknesses and offer suggestions for changes, if any and (vii) to assess the role of PRIs and DPEP in Ratlam and their impact on community participation.

Scope and geographical coverage: Ujjain, Ratlam and Shajapur districts.

Methodology: The required data was collected from 60 headmasters, 72 teachers, 315 VEC members, 300 guardians and 60 primary schools selected from 32 *gram panchayats* in these districts, 9, 10 and 13 respectively from Ujjain, Ratlam and Shajapur districts. From each of these districts, which were basically rural, one block was selected keeping in mind the presence of high percentage of SC (in Ujjain), ST (in Ratlam) and General category (in Shajapur) population in them. The three respective blocks were: Tarana, Sailana and Shajapur. From each block, preferably those *gram panchayats*, which were headed by women, and 20 primary schools were selected. The tools used for the study were two interview schedules for VEC members & guardians and two questionnaires for headmasters & teachers. These were pre-tested in the area of study and necessary modifications were made accordingly. For analysing the data, separate code books were developed for each interview schedule and questionnaires. Besides, a one-day workshop in July this year, attended by officials of education department and PR representatives was conducted. The first draft of the report was discussed here in detail. Issues, suggestions and recommendations raised in this workshop were suitably incorporated into the report.

Major findings: These have been listed under the following four headings: (1) Responses of headmasters: (a) 56.7% the headmasters included in the sample had educational qualifications of upto higher secondary level only, (b) following the launch of DPEP in these districts, some positive results such as building an educational environment in the schools, increase in enrolment/admission maintenance rate, conducting short-term training programmes for teachers *etc* were achieved, (c) construction of school buildings received little attention in Shajapur, which was a General category district, (d) under the PR regime, as indicated by respondents, the following improvements in schools was observed: availability of sufficient teaching material, construction/repairs of schools buildings, adequacy of teaching staff, regular attendance of teachers and timely opening of schools, (e) the negative aspects of the PR system were: rude behaviour of elected representatives towards teachers and too much of unnecessary interference by elected PR representatives, (f) responsibility factor of the teachers had increased under the new dispensation, though there were some impediments like unnecessary interference of elected representatives, and (g) the new concept of overall monitoring/ supervision and management of school functioning by VECs had proved useful and effective. It had fulfilled the need of people's participation in the management and betterment of school administration. (2) Response of teachers: (a) 58.33% of the respondents had educational qualifications of upto graduate or post-graduate level, (b) sports and cultural activities were the main extra-curricular activities of teachers, (c) 53% of the respondents agreed that VECs under PRIs had played their expected role in the improvement of the school education system, (d) the level of involvement on the part of the *sarpanch* in the overall development of schools was reported to be normal and workable, as indicated by 58% of the respondents, (e) 62.5% of the respondents were not satisfied with the empowerment of the panchayats for schools, and (f) teachers did not have a clear perception of the role of panchayats for the improvement of village education. (3) Responses of VEC members: (a) 79.% of them were literate or educated. This percentage was much higher than the rural literacy rate. It was also significant from the point of view of responsibilities given to them, (b) with the formation of VECs, the participation of such peoples had been made possible, unlike earlier, in the management of the school affairs of their villages, (c) the issuance of attendance certificate to teachers was one of the reasons of resentment between PR representatives and teachers, (d) the most preferred role (54%) by VEC members was to contact and motivate the guardians for sending their children to school, (e) even after the formation of VECs, the understanding between teachers and villagers had not improved (17.4%). This was due to almost non-existent participation of the common people in the school management, (f) 69% of the VEC respondents discussed the issue of regular and timely opening and closing of school, and (g) they too had a hazy perception of the role of panchayats for the improvement of village education. (4) Responses of guardians: (a) About 91% of the guardians overall had upto four children, which was a healthy and encouraging trend, (b) most of the guardians interacted with teachers on a regular basis to keep track of their ward's progress, (c) 87% of the guardians confirmed that schools in their villages functioned on a regular basis, (d) a high percentage of teachers commuted to their respective schools from outside. This was one of the most important causes for the improper functioning of schools in the rural areas, (e) nearly 55% of respondents observed no significant change in the role, behaviour or attitude of teachers under the PR system, (f) some guardians in Ujjain and Shajapur did not approve of the efforts made by teachers and VEC members in persuading their children to attend school; however, the positive changes were: regular attendance of teachers, schools opening on time, increase in the enrolment and decrease in dropouts in schools, availability of teaching material *etc*.

Implications and action points: 1. Persons with better educational qualifications should be appointed as headmasters of schools for better management of educational institutions. 2. Panchayats should ensure continuos and effective control over teachers. {ED/03}

Dani, D.N. & Sharma, M.P. 1999. **On-the-job support required for elementary teacher educators.** *Rajasthan: Vidya Bhawan G.S. Teacher's College, Institute of Advanced Studies in Education,.Udaipur.*

Objectives: (i) To conduct job analysis of elementary teacher-educators (ETEs), (ii) to identify the perceived and performed roles of ETEs, (iii) to prepare present and desirable profiles of ETEs, and (iv) to identify on-the-job support needs of ETEs on the following seven counts: content (subject matter), curriculum transaction (pedagogy), educational technology, evaluation, school-community relation, understanding children & their development and attitude towards teaching/learning.

Scope and geographical coverage: States of Gujarat, Madhya Pradesh and Rajasthan.

Methodology: The required data was collected from 20 institutions, 120 teacher-educators (TEs), 20 principals, 120 primary school teachers selected through purposive sampling method. About 50% of the sample was taken from Rajasthan. While selecting groups of teacher-educators (TEs), the variables of sex, subject, experience, location of institution (rural/urban) and type of institution (DIETs/STC) was taken into account. While selecting elementary in-service teachers (EITs), only those with at least five years of experience and who had undergone elementary teacher training course (*viz* B.Ed./ STC) were included. Principals of elementary teacher training institutions with a minimum of five years experience in their post were selected for interviews. Institutional programme schedule, institution observation schedule, TEs' profile, TEs' need inventory, job card tabulation sheet, school teacher schedule, interview schedule for principals were the tools used for data collection. The first draft of the tools was developed in a workshop of ETEs, teachers and experts. These were tried out in the local elementary teacher education institutions and local primary school teachers and the necessary modifications made on the basis of the feedback. The data in the field was collected by experienced teacher-educators working in secondary teacher education institutions, who were oriented in a workshop.

Major findings and implications: (1) The study identified 10 important perceived (P1) & performed (P2) roles and 10 least important perceived & performed roles. The former included: to guide students in practice lessons (P1)/to teach theory papers (P2), to evaluate practice lessons (P1)/to guide students in practice lessons (P2) *etc*. It was observed that out of 10 eight roles were common in both the categories showing a close proximity between the roles perceived and roles performed by teacher-educators. The latter (the least important roles) included: to help the head in admission work (P1)/to conduct educational surveys (P2), to maintain various records of the institutions (P1)/to help the institution in the organisation of activities related to enhancement or enrolment and retention (P2) *etc*. (2) With regard to the profile of TEs in the sample, the following was observed: 54.17% were male, those belonging to SC and ST categories was extremely low at 1.67% & 0.83% respectively, percentage of OBC TEs was 15. About 45% belonged to the higher age group *i.e.* 40 years & above, about 96% were post-graduates and 60% had an M.Ed. degree as well, just about 8% them had undergone STC or any primary teacher training course, less than 30% of TEs had any experience of teaching classes I-VIII, only 17% had an experience of teaching B. Ed. & M. Ed., about 95% had more than one year's teaching experience at elementary teacher training level, nearly 27% had not attended any in-service education programme and overall, only 36.67% had publications to their credit. (3) With regard to on-the-job needs of the TEs, the following was observed: about 20% said that they needed support in gaining mastery over content prescribed at primary stage, about 25% expressed the need for gaining mastery over some of the subject matter areas prescribed in the elementary teacher education programme, nearly 17% acknowledged that they lacked mastery over methods of teaching in primary classes & needed support in teaching strategies. The need for training in preparation of some special types of lessons based on puppetry, activity-based lessons, project method *etc* was also expressed. They felt that the quality of sessional work completed by student-teachers was far from satisfactory. Also they expressed the need for training in use of computers & for support in preparation and use of teaching aids like puzzle board, pictorial cards *etc*. More than 50% lacked expertise in the use of psychological tests, more than 40% needed training in institutional planning, maintaining school records, group dynamics, organisation of co-curricular activities, action research and case studies. Some of the innovations and new projects towards which the TEs needed orientation were teaching models, MLL, *Lok Jumbish, Shikshakarmi Yojna, anganwadi*, DPEP, non-formal education, joyful learning and multi-grade teaching. Most of them felt the need for the provision of recent reference material. (4) TEs should be given exposure to innovative methods, motivational and orientation programmes, refresher courses, extension lectures and demonstrations and audio-video materials. There should be some sort of networking of teacher education institutions. {ED/04}

JOSHI, J.N. 1999. **Assessment of teacher knowledge of content area and pedagogy in mathematics at the primary school stage.** *Chandigarh: Institute for Development and Communication.*

Objectives: (i) To assess the actual level of teachers' knowledge of content through sequential diagnostic test in mathematics at the primary school stage, (ii) to analyse curriculum transaction in the classroom with respect to mode of teaching, use of low-cost material aids, interaction with students, use of feedback and efforts to identify students with special needs requiring focussed attention in the classrooms, (iii) to understand from teachers, their background, the problems they come across in the teaching of mathematics, evaluation techniques they follow and the use of low-cost material aids, (iv) to analyse data and identify hard spots in mathematics, and (v) to suggest plan of action for organising pre-service and in-service teacher education programmes for primary school teachers.

Scope and geographical coverage: Kaithal, Jind, Hissar and Sirsa districts in Haryana.

Methodology: Two CRCs, one representing rural and the other urban location of schools were selected in each district. Depending upon the number of schools under each CRC, all the teachers working in the schools were included in the sample. In all, this came to 34 schools & 112 teachers from rural and 32 schools & 93 teacher from urban areas respectively. Through a workshop mode involving teacher-educators and experts, a sequential diagnostic test in mathematics (SDTM) for primary school teachers was developed. After pre-testing on a small group, 65 items for assessing the teachers' knowledge in the content area of mathematics at the primary school stage were retained. The items were essentially arranged sequentially in the ascending order of difficulty which included items on number & numerals, place value of digits, concept of prime number, questions on area, fractions, their addition, percentages *etc*. 205 teachers were administered the SDTM out of which 200 returned it duly completed. To assess their awareness of pedagogy including their acquaintance with materials of mathematics kit, and their own perception of making teaching a joyful activity and suggesting activities to make mathematics teaching - activity & creativity-oriented, 131 teachers were administered a questionnaire having 25 items. Also 31 classroom transactions were observed to assess the mode of transaction and strategies used in teaching-learning. For this, a proforma containing 25 items on use of black-board, use of mathematics kit, classroom practices, questioning *etc* to be responded in 'yes' or 'no' form, was developed. Teachers from these schools were also interviewed on a sample basis.

Major findings: (1) The study revealed that although, by and large, teachers' understanding of concepts was satisfactory, they failed in certain competencies such as differentiation between number & numeral, concept of prime number, LCM/area, concepts of cuboid/cylinder/planes/ray/equilateral triangle/chord/straight angle, approximation to the nearest decimal place, simple rule of solving a problem involving division, multiplication, addition & subtraction *etc*. (2) But for one, none of the teachers have a mastery level (80% & above) of performance in all the items. The rural and urban differentials were noticeable in favour of the rural group, though marginally. (3) The mean scores for rural and urban groups differed significantly at .01 level, the mean performance of the rural group being higher than that of the urban group. (4) In terms of performance on the total test, majority of the teachers scored less than 35% marks. (5) About three-fourth of both rural and urban teachers had awareness of pedagogical principles & practices. (6) Also about 75% of rural and of urban teachers failed to operationalise the pedagogical principles in actual practice of teaching.

Implications and action points: 1. Rigorous training at the pre-service stage of education of teachers was needed. Special care should be taken to bring their level of competence in mathematics up to the mastery level. 2. Personal development programmes should be organised as a part of in-service training of teachers for transforming their attitude towards teaching and for making them conversant with principles of pedagogy. 3. Special orientation courses for teachers on a recurrent basis will have to be organised for updating their knowledge of subject matter and motivating them. {ED/05}

RAO, NARASIMHA G.V.L. 1999. **Teacher absenteeism in primary schools: A field study in selected districts of MP & UP.** *New Delhi: Development and Research Studies.*

Objectives: (i) To undertake an extensive literature review on teachers' absenteeism, (ii) to assess the nature and extent of teacher absenteeism, (iii) to study various reasons for teacher absenteeism on account of: (a) teacher-related factors, (b) lack of monitoring and supervision of the school and teachers' activities, and (c) various external determinants, (iv) to ascertain the nature, extent and reasons for teacher absenteeism as perceived by the community, school-going children, teachers themselves and education officials at the block, district and the state levels, (v) to study, understand and analyse teacher absenteeism in the administrative and policy-related contexts with respect to selection policy, transfer policy, monitoring & supervision mechanisms and introduction of panchayati raj & its effect on the school education system, and (vi) to suggest suitable interventions to minimise teacher absenteeism and its impact on the quality of education.

Scope and geographical coverage: Madhya Pradesh and Uttar Pradesh.

Methodology: Two districts in each state *i.e.* Bilaspur & Balaghat in MP and Meerut & Saharanpur in UP were purposively selected. They were drawn in a manner that they broadly had a similar development profile and different kind of programmatic inputs. Also, these districts represented a heterogeneous population profile in terms of social characteristics in order to understand its bearing on teacher absenteeism. From each district, the blocks were stratified into four groups based on the criterion of distance in kilometres from district headquarters. From each, one block was randomly selected. 20 schools (*i.e.* a total of 80 in each district) were randomly selected in each block. In total 322 schools were sampled. The following instruments were developed, pre-tested in the field before finalisation and were administered to different categories of respondents: school observation schedule, school information schedule (for headmasters), teacher profile schedule, state/district official interview schedule and discussion guidelines for FGDs. Besides, information was also collected through literature review and collection of secondary data.

Major findings: (1) Nearly 94% of the schools had their own building. However, about one-third of the sample schools had just one or two rooms. Significantly, about 50% of the primary schools across the four study districts had a separate office room. As much as 33% of the schools lacked adequate number of chairs for teachers. (2) The number of teachers posted in the sampled schools ranged between 2-4 teachers per school. (3) The teacher-pupil ratio in all the study districts was below the prescribed norm of 1:40. (4) Nearly three-fourths of the teachers in the four districts were males. A majority of teachers were above 45 years of age. (5) Nearly 30% of the teachers posted in primary schools had qualifications below class XII. (6) About 22% (33% in MP and 15% in UP) belonged to SC/ST groups. (7) About 18% of the teachers resided in the same village; a majority of them come from villages farther than four kilometres. (8) About 53% of the teachers had their own means of transport, mostly bicycle or even scooter/motor-cycle in a few cases, to reach school. About one fourth of the teachers depended on public transport. (9) As high as 83% of teachers regularly attended school. This was encouraging as various micro-studies on the subject conducted a few years ago had presented a dismal picture of teacher attendance. About 7% percent of the teachers were reported to be away on official duty (non-academic activities such as collecting data for poverty line/economic surveys) during school working days. However, only 6% of the teachers were absent from duty without any valid reason and this proportion was not more than 9% in any of the study districts. About 3% were away on non-official work (*viz panchayat* work) and for personal reasons. Only this constituted 'complete absenteeism'. (10) In over one-third of cases, teachers were not found in the classroom. This form of 'disguised absenteeism/attendance' in which a large number of teachers are not involved in teaching-learning activities was most prevalent. This problem was more acute in MP than in UP. (11) It was observed that at any given time, slightly above 50% of the sections in primary schools were unattended to by a teacher. (12) With regard to the absentee teachers, 75% of them were male, 50% over 45 years of age and most of them came from distances over four kilometres. A majority of them had received both pre-service and in-service training. (13) About three-fourths of the schools where teachers were absent, were 3 or more teacher schools. The probability of teacher absenteeism increases with the number of teachers posted in a school. (14) Regular school inspection and distance from the block headquarters did not seem to have any bearing on teacher absenteeism/attendance. (15) Poor attendance of children led to greater teacher absenteeism; lack of attention to children by teachers leads to lack of interest in education and poor attendance, which in turn resulted in greater absenteeism.

Implications and action points: 1. There should be no or limited involvement of teachers in non-academic work. 2. Placement of teachers nearer to the place of permanent residence. 3. Incentives for purchase of a two-wheeler to obviate dependence on public transport. 4. More schools in the same habitat should be opened rather than appointing more than three teachers in the same school. 5. There should be continued emphasis on enhancing school infrastructure and facilities. 6. Active participation of public including panchayats, PTAs, VECs *etc* was necessary to ensure smooth functioning of primary schools. {ED/06}

MALI, M.G. 1999. **Development of effective teaching methods with the help of mini teachers (pupil teachers) in multi-grade schools: An experiment.** *Maharashtra: MJP Vishwabharati Research and Cultural Institute, Gargoti, Kolhapur.*

Objectives: (i) To study the role of monitors and house leaders in single- and two-teacher schools, (ii) to study how far monitors and house leaders could work as mini-teachers in such schools, (iii) to find out areas of duties and responsibilities which monitors and house leaders could undertake, (iv) to explain the important role of monitors and house leaders in non-graded, one and two-teacher schools, and (v) to prepare the plan for non-graded single-teacher and two-teacher schools.

Scope and geographical coverage: Budargad *taluka* in Kolhapur District.

Methodology: The required data was collected from 11 schools, including five single-teacher schools (STS), five two-teacher schools (TTS) and one non-graded STS at Gargoti which was to function as the model for the 10 schools. The *taluka* is one of the most backward in the district, where majority of the schools were STS and were neglected in most of the aspects. Non-graded pattern recommended by Education Commission (1964-66) and implemented in Gargoti was to be followed. The following aspects were included: (a) non-grading of schools into houses, (b) restructuring of government syllabus of classes I-V into suitable units, (c) organisation of activities related to local environment as per the principles of basic education, (d) work plan and orientation of monitors and house leaders selected as mini-teachers, and (e) locating the role of monitors and house leaders in STS. The experiment was explained to all concerned teachers and the education officers at the *taluka* level. Teachers from the 10 STS observed the pattern introduced in Gargoti; a combined meeting of all monitors, house leaders, and teachers of STS was organised by the project director (PD) for orientation. Frequent visits were made by the PD and research assistants (RAs) to all schools under the experiment and necessary changes were made following discussions with teachers. Being an activity-oriented experiment, the following were used: maps, charts, small black-boards, photos, models, sand tray, material for paper work, clay work, organisation of cultural activities *etc* and printed syllabus into graded units. Monthly meeting of all teachers was conducted to review the work and discuss the difficulties faced *etc*. To assess the academic progress, each teacher maintained a diary containing one full page on each child in the school. They also kept a record of the activities and duties performed by monitors and house leaders; similarly, students had to maintain a diary in which they recorded their duties. RAs and the PD had their own diaries to record their visits and observations. The data collected from the above, evaluation sheets for the academic progress & role played by monitors & house leader and proceedings of the meetings of teachers called was processed methodically.

Major findings: (1) The experiment was able to create a family atmosphere in schools. (2) It created an environment where the students were able to develop: a co-operative attitude, their good qualities, self-learning and leadership qualities. (3) It helped to reduce wastage and stagnation. (4) The traditional failure system was eradicated. (5) Teachers realised that students could shoulder responsibilities, if properly-oriented. (6) Some monitors could develop as mini-teachers and then help the teacher in the teaching-learning process. (7) Among the role played by monitors was: giving and checking of assignments in the form of revision, distribution of daily work like prayer, cleanliness *etc*, distribution & collection of TLM, helping house leaders, engaging the class and taking attendance when the teacher was on leave, reporting difficulties or problems of students/class, bringing absentee or irregular children to school, general check-up of cleanliness of children, arranging for their seating, standing and walking, maintenance of discipline and leadership in cultural & social service activities. (8) The role played by house leaders included the above and among others, the following: control/guidance and general supervision of the formed group and monitoring its progress, organisation & guidance activities in the absence of the teacher, leadership role in all group activities like story-telling, games, cultural activities *etc* and beautification of school.

Implications and action points: 1. Need to implement ungraded unit pattern (UUP) across the country keeping in mind its effectiveness and usefulness in STS and TTS. 2. A handbook on UUP covering all details on STS & TTS should be prepared and provided to all teachers. 3. State governments through *zilla parishad* should conduct at least two experimental STS in each district. 4. NCERT and SCERTs should encourage such experiments, especially in those parts of the country where the number of STS is large. The latter should conduct workshops on the subject. NCERT should open a separate cell for such school improvement programme with a small expert committee. {ED/07}

ARORA, POONAM. 1999. **A report for DPEP integrated studies for moderately hearing impaired children**. *Sponsored by Ed.CIL.*

Objectives: (i) To ascertain the need for integrated schools, (ii) to provide basic information relating to hearing-impaired children, (iii) to suggest guidelines for structure and patterns of teaching techniques and materials for hearing-impaired children, and (iv) to examine the teachers training curriculum of some institutions in order to understand the role of teacher training programmes.

Scope and geographical coverage: Assam and some areas of West Bengal, Haryana and Delhi.

Methodology: The study was based on observations, interviews, questionnaires for teachers and activities with teachers and children. The number of institutions/schools from where the data was collected and activities conducted were: 11 in Delhi & Haryana, 12 in West Bengal, 14 in Assam. Adapted teaching aids such as picture/flash cards, matching/communication/number/flannel/pocket boards, tambola/number games were tried out with teachers and children. Activities with teachers included discussions, model teaching, demonstration of audiometer, graph and hearing aids, speech therapists' talk on hearing loss *etc* and with children included games, hearing test, stories, discussions *etc*.

Major findings and implications: (1) Most of the schools in the rural areas of Assam, as well as Bengal, had disabled children. In the absence of specialists or special schools in villages and the inability of parents to send their children to special schools in urban areas, there was the need to introduce and popularise integrated schools in rural areas. Some parents had already taken the step of integrating their disabled children with the mainstream. (2) Teachers needed information and exposure related to the special needs of children through regular training and supervision. Similarly, schools needed activity-oriented teaching programme and suitable teaching aids. (3) It was observed that very often hearing problems went undetected; however, once discovered, such children were declared unfit for normal schools, as was the case in other disabilities as well. (4) With proper reformed training, syllabus and outlook, hearing-impaired children could be educated with the normal students. It was observed that lack of training and exposure often gave rise to fears and concern in the minds of teachers and parents. (5) Given the kind of work pressure and lack of infrastructure teachers in rural areas face, it may be advisable to include moderately-hearing impaired children in regular schools. Those with average intelligence and stable behaviour could overcome the physical constraint of a heavier hearing loss as well. (6) Awareness programmes, workshops and the like should be organised involving educationists, principals, teachers and resource persons to create an awareness and sensitise people on the problems faced by hearing-disabled children. (7) Sensitising parents and the community towards acceptance of disabled children was of utmost importance. (8) There existed a need to review the teachers training and insert information regarding the hearing-handicapped children as well as other disabilities. Legal status for integrated institutions and rights of disabled children in the mainstream needed to be re-defined and systematised. (9) Most teachers felt that moderately-hearing disabled children were suitable for integrated system compared to severely-disabled ones. (10) Though the social structure allowed family support to handicapped children, yet superstitions and lack of facilities in terms of poor medical facilities, accessibility to specialists and resources led to an attitude of neglect and ignorance. (11) There should be an integrated system in government schools at the village level in particular, at least till the primary level. (12) Communication between teachers and the administration should be more informal and consistent. {ED/08}

Batra, Sunil. 1998. **Problems and prospects of double shift schools: A study of Assam and Madhya Pradesh.** *New Delhi: Centre for Education, Action and Research.*

Objectives: (i) To identify different models of double shift schools, (ii) to ascertain the efficacy of double shift schools in terms of managerial and administrative inputs, (iii) to understand and explore the economic implications of running such schools, (iv) to understand and explore educational implications of running double shift schools, (v) to identify and explore social implications of double shift schooling, and (vi) to assess the potential of running double shift schools.

Scope and geographical coverage: Bhopal & Narsingarh districts in MP and Guwahati & Dhubri districts in Assam.

Methodology: 15 single-shift schools (SSS; 11 in MP & 4 in Assam) and 31 double-shift schools (DSS; 19 in MP and 12 in Assam) were selected for the study. Quantitative data was collected from schools on such items as number of rooms, black-boards & other equipment, teachers, students enrolled in school, student attendance *etc*. Qualitative data was also obtained from schools using questionnaires, interviews and group discussions.

Major findings and implications: (1) Effective teaching and learning time in DSS was reduced by half for shift I and at least by 30% for shift II. (2) Shift I in most schools did not receive adequate and consistent supervision from headmasters. (3) Inaccessibility to a primary school within a kilometre seemed to be the reason for starting shift schooling in at least 60% of the schools. (4) Teacher-pupil ratio in shift schools was not any better than in non-shift schools. (5) Reduced teaching time did not necessarily imply that teachers in DSS organised their classrooms or instructional approaches any differently from teachers in SSS. (6) Nature of supervisory inputs provided to teachers in both types of schools was not very different. (7) The shifts in all schools were divided on the basis of classes and not gender or section-wise. Hence, an opportunity to choose a particular shift was not really available to children and their families. (8) The practice of multi-grade teaching as a classroom strategy to deal with an over-crowded school situation was being followed in at least 70% of shift schools and 87% of non-shift schools. (9) TLM was provided to shift schools only as a unit and not for each separate shift. Owing to this, shift I classes could not use the same. (10) The average attendance of students was observed to be better for SSS than for DSS. (11) Access to school was more or less the same for both type of schools. Improved access was reported in DSS of Guwahati and Narsingarh during 1997-98 only. (12) Two-third of the headmasters cited inadequate number of teachers, shortage of space, late arrival of teachers, students of shifts getting neglected especially during monsoons and winter when they cannot reach on time as the major problems with shift schooling. The first two problems were also voiced by parents and VECs. (13) Headmasters of SSS opined that teachers would appreciate the introduction of shift system; however, observations from existing DSS revealed otherwise. (14) Teachers complained about not getting enough time to teach, especially classes in the shift I. (15) About half of the teachers who responded were willing to work for two shifts a day if an incentive was given. However, nearly 83% of them also said that they would not be able to give equal attention to both the shifts in such situation. (16) About 60% of the parents sent their children to a DSS because they did not have a choice. (17) Given a choice, nearly 50% of the parents of both SSS and DSS would prefer to choose a SSS for their children. Also, many of them felt that teachers would not agree to teach in two shifts and their children too would not like to attend school on different timings. (18) Given a choice, about half the students preferred to attend a SSS. Less than 40% favoured DSS about 12% were undecided. The number of those who preferred single shift was higher from shift I than shift II. (19) Less than 10% of the students said that they needed to work to supplement family income. (20) The primary objective of saving costs, for which shift schooling started in the first place, still seemed to be elusive. In almost all of the sample cases, school buildings either required extensive repairs or expansion to include even the existing number of children. In practice, overcrowding in shift schools had not reduced. On the contrary, reduced teaching time had meant reduced learning time for students. (21) Teachers in DSS received regular salaries as their counterparts in SSS but worked for lesser number of hours. (22) No significant difference was found on comparing SSS and DSS, in respect of access, quality of service, attendance and achievement levels of students. (23) Most of the students & parents were dissatisfied with the shift system and given a choice, would prefer SSS. (24) The loss for students because of shift schooling is most pronounced for shift I, which in all shift schools consisted of primary classes. (25) Field observations suggest that shift schooling, as it is practised today, instead of reducing the overall cost of delivery of services was actually inflating it. {ED/09}

Gounden, A.M. Nalla; Chandra, K. Suresh & Anbupalam. 1999. **A study of school efficiency**. *Sponsored by Ed.CIL, New Delhi.*

Objectives: To make empirical estimation of production function for school efficiency as measured by the achievement of students of class V.

Scope and geographical coverage: Madhya Pradesh.

Methodology: The study is based on the secondary data of 594 primary schools in which baseline achievement survey in Hindi and mathematics was conducted for class V students in 1994 under DPEP. The survey was conducted in 19 districts to find out the achievement level of students just prior to implementation of DPEP. While the school mean scores in Hindi and mathematics were the criterion variables, the input variables included such variables as school facility index, enrolment in the class, proportion of students availing mid-day meals, average teachers' experience, average schooling of father, average age of students, teaching aid index *etc*. The values of these variables were obtained for each school from the school and pupil questionnaires which were administered along with the tests. In all, 40 input variables were selected for analysis. Using the data of 594 schools, an educational production function using the Cobb-Douglas approach was fitted, and Stochastic Frontier Functions of schools were estimated. Both OLS and Maximum Likelihood (ML) estimates have been provided for the three output variables - school mean scores in Hindi, in mathematics and in the total of the two. The analysis was carried out using all the 40 variables and also sub-sets of 18 and 8 variables. Input-output analysis carried out in this way helped in estimation of the efficiency with which inputs were transformed into outputs at the school-level. Two models (one in which the distribution of inefficiency was assumed to be half normal and other in which it was assumed to be truncated normal) were used in the analysis.

Major findings: (1) The regression results (beta coefficients for all the input variables) and efficiency scores (for all the schools) were obtained for each of the three criterion variables (SAT scores in Hindi, mathematics and Hindi + mathematics) using both the models. The frequency distribution of school efficiency and the mean and standard deviation have also been reported. (2) Two teacher variables, teachers' family size and participation of teachers' spouse in labour market, were found to be negatively correlated with SAT scores. (3) Efficiency scores in mathematics are less than those in Hindi. About 65% schools were classified in efficient category and 35% in inefficient category. {ED/10}

CFAR. 1999. **A basic communication strategy for DPEP.** *New Delhi: Centre for Advocacy and Research.*

Objectives: (i) To assess the grassroots mobilisation campaigns for popularising DPEP, and (ii) to assess the contribution made by manager, trainers and experts towards key elements of the programme and in particular, its community mobilisation component.

Scope and geographical coverage: Assam, Madhya Pradesh and Tamil Nadu.

Methodology: Structured questionnaires were used to collect data on the project structure , delivery mode, grassroots level structures and community perceptions. The respondents were recipients and stakeholders; programme planners, managers, trainers and grassroots level implementers. In each of the three states, the data was collected form 100 parents (50% males, 30% females and 20% couples), 60 rural professionals (panchayat and VEC members, social workers, teachers *etc*) and 40 school-going and dropout children. Apart from semi-structured interviews with the respondents, the focus group discussion (FGD) technique was also used (7 FGDs were conducted in each state - four with parents, two with the children and one with the professionals). To begin with, a pilot study was conducted in MP before the actual field study.

Major findings: (1) Sources of awareness: (a) Enrolment drives were mainly responsible for creating awareness about the programme: 62% of the parents in Assam, 63% in Raisen and 90% in Villupruam first identified the programme through it, (b) 33% parents in Assam and 35% in Raisen, through community meetings, (c) 11% in Jhabua and 19% in Pudukottai, through their meetings with community leaders, (d) 73% in Raisen and 47% in Villupuram, through the new village school building being constructed in their village, and (e) meetings that villagers held with the visiting officials made 71% parents in Raisen and 27% in Villupuram aware about the programme. (2) Perception of changes: (a) Parents displayed a remarkable level of recognition of changes in all the different areas ranging from the qualitative inputs in fields like pedagogy, curriculum and learning methods to the physical improvements in the school. They observed positive change in quality of teaching (56% in Assam), introduction of joyful learning (53% in Villupuram and 41% in Pudukkottai) and availability of drinking water. A significant dimension to the parents' understanding of the changes in the school consisted in their consistent identification of improvement in teachers across the states, (b) most children indicated that what they liked most about the school was 'good teachers' and 'learning interesting things'. (c) recognition of the Programme's contribution in improving the quality of teaching was seen as exceptionally high in all the phase I areas; responses from the phase II districts, too, showed considerable appreciation for the same, (d) the contribution of the programme in making the schools more accessible was well depicted in the response of the professionals from Raisen (78% and to a certain extent in Jhabua, (e) in all the three states, a majority of the respondents gave reasons of 'better job/education a necessity' as the foremost reason of sending their children to school, (f) the stress of the campaigns on using local elements and figures as agents for motivation such as using the school-going children in the rallies to create peer influence had been received well by the communities, (g) government initiative - incentives, provided by the government had played a significant role in convincing parents, particularly from less-privileged social groups, about their ability to access education in a sustained manner; participants attributed government's support to this Programme constituted as a critical feature. Their personal contact with the panchayat members, block and district-level officials reinforced their confidence in the role of the government and the programme, (h) parents perceived their role as stakeholders or community managers and recipients of the Programme, (i) the programme had empowered the community by making school and teachers accountable to them. They perceived that their close supervision helped in improving the quality of education in the village, and (j) the programme had ensured tangible outcomes/benefits (in terms of physical infrastructure like school buildings and drinking water facility *etc* and teaching-learning methods such as joyful learning methods *etc*) that were child-centred. (3) Perception of professionals, women *etc* (about government initiative: (a) professionals considered it as a target-oriented government programme aiming to ensure primary education for all by 2000. It was perceived as a scheme where parents, teachers and children should pitch in to this goal, and (b) women who were aware about the programme outlined its objectives as primary education for all, sending the girl child to school and community participation in school. (4) Community role: (a) uneducated status of the participants was constant embarrassment leading to low self-esteem. They did not want their children to face a similar situation, (b) there was a growing awareness role about the benefits of education. It was perceived as a necessity for the next generation and a medium for improving their lives, mould their future and get good jobs, (c) strengthening of PTAs, VECs/VLCs had opened avenues for interaction between parents and teachers, and (d) the involvement of the community in construction of school buildings, providing furniture, toilet and drinking water facilities had also helped in the sustained interaction between the community and the school. (5) Benefits perceived: (a) the Programme provided for grants to improved infrastructure like school building, classrooms, toilet, drinking water facilities and furniture. These were the most perceivable changes for the community. Besides this, teachers were also provided with additional resources to prepare TLM or aids, (b) in all the three states, parents appreciated the change in the attitude of teachers. With the teachers incorporating new child-friendly teaching methods, the teacher-pupil relationship had improved, (c) across the states, education of the girl child was identified as a critical area for the Programme by parents and professionals alike, (d) training of teachers was identified as a major catalyst by parents and professionals in changing their attitude and making them more responsive towards the child and the community. Since the programme had introduced new curricula and methods, the training at the cluster and block level had helped teachers in making education child-friendly, (e) a distinguishable feature of the Programme, as identified by the participants was the introduction of new teaching aids like maps, charts, abacus *etc* related to the curriculum, (f) joyful learning through singing, dancing, games and story-telling enjoyed by children were also specified. Children provided the first-hand information on these changes in the school to their parents, (g) parents perceived their wards showing an enhanced interest in education and using it in their daily life. Children were also part of the enrolment drive within the village, (h) in Assam parents noticed that children did not want to miss their classes because of new teaching methods. Education had also led to their taking keen interest in cultivation, in maintaining cleanliness and personal hygiene, and (i) alternate schools were identified as yet another concrete outcome of the programme. Introduced for children, who were either unable to attend the rigid formal schooling system or were dropouts, had gained popularity among the community as programme reaching out to the marginal groups. (6) Communication channels: (a) in Assam since participants had access to the electronic media, it was a major source of information. In Areng, for instance 70% of the participants owned TV sets while others had access to it in the neighbour's or relative's house. All households in the village owned radio sets, (b) informal inter-personal communication at the local markets and *haats* with friends, relatives kept parents informed about the happenings around them, (c) In MP, *gram sabhas* acted as a popular forum for inter-personal communication. The entire village used to be called for their meetings. Hence, all the villagers became aware of these activities and schemes. Those who could not attend came to know from others who had attended them, and (d) in Tamil Nadu, the multi-media approach of using newspapers, radio and TV led to a high recall of both the form and content of the messages.

Implications and action points: The study also proposed the communication strategy to be adopted and identified the key elements and features of DPEP (e.g. joyful learning, education of the girl child, *moktabs* in Assam, alternate schools, community participation and empowerment) that can be projected in a communication campaign and suggested the target groups and appropriate communication vehicles for the same. {ED/11}

DRS. 1999. **Study on participation of children in primary education in two districts of UP.** New Delhi: Development and Research Services (DRS).

Objectives: (i) To estimate the enrolment of children in government, private (recognised and unrecognised) schools as well as out-of-school children in villages, (ii) to understand the actual status of out-of-school children as to whether they belonged (a) never-enrolled category, or (b) dropouts, (iii) to develop a basic profile of schools that cater to children in the selected villages for understanding the reasons for variations in enrolment in different types of schools, and (iv) to estimate the average attendance of children in different types of schools.

Scope and geographical coverage: Hardoi and Moradabad districts in UP.

Methodology: The sample of the study comprised 112 villages (including 55 in Hardoi District) and all schools having primary classes in the sampled villages. From each of the two districts, five community development blocks were selected representing different levels of development. Under each block, ten villages were selected randomly for the study. The tools used for data collection included a village schedule and school schedule, both developed by Ed.CIL's Technical Support Group. These tools were field-tested and necessary modifications, based on the feedback received were made in consultation with Ed.CIL. The study also used secondary sources of data, in particular, the data compiled by the village school teachers through a household survey called the *Balgarna* register besides information from official records, villages and reports available in village schools. Prior to actual collection of field data, a team of 30 qualified field researchers was given rigorous three-day training in March 1999 following which the data was collected in the latter half of the month. Throughout the report, analysed information has been presented in the cross-tabulation form. Important independent variables have been presented against the background (dependent) variables. The tables contain information in terms of relative number (percentages) and/or absolute numbers (frequencies or counts) as per the need for an effective presentation of the information. During data entry random checks were made for key punching errors. The data was analysed using the SPSS software-package.

Major findings: (1) Profile of sampled villages: (a) Nearly two-thirds of the sampled villages in Hardoi District (hereafter referred as Hardoi) had a population below 2,000, while as much proportion of villages covered in Moradabad District (hereafter referred as Moradabad) had a population of above 2,000, and (b) a high majority of the population living in both the districts belonged to the socially disadvantaged groups of SC/OBCs. However, there were no STs in either of the two districts. (2) Availability of schools: (a) As high as 86% of the villages in Hardoi and about 63% villages in Moradabad had just one school, (b) most of the villages had only government primary schools; this proportion was as high as 86% in Hardoi, followed by 74% in Moradabad. Above 10% of villages in both districts had government as well as private (recognised) schools, while 5 out of 57 villages in Moradabad had government, private (recognised) and un-recognised schools, and (c) nearly one-fourth of the villages in Moradabad and one-eighths in Hardoi reported children going to neighbouring villages for attending primary schools. (3) School characteristics: (a) Teacher strength was higher in private schools, particularly in the recognised ones. As high as 85% of private recognised schools in Hardoi and 96% in Moradabad had four or more teachers; also, the teacher-pupil ratio was very favourable in these schools, (b) a majority of schools in Hardoi reported inadequate availability of

TLM. This situation was slightly better in Moradabad where private schools reported a better status. Availability of usable toilets was better in private schools in both the districts. Availability of drinking water was uniformly high in both the districts across all types of schools, (c) multi-grade teaching was reported by majority of government schools in both the districts. In contrast, a much smaller proportion of private (recognised) schools reported teaching classes together, (d) English was taught in a large majority of private schools in both the districts. While a majority of government schools in Moradabad reported teaching of English, the proportion was very low in Hardoi, (e) an overwhelming majority of the children possessed textbooks in all types of schools. This proportion was somewhat lesser in the case of private (un-recognised) schools in Hardoi, and (f) two out of three private schools in Hardoi and an overwhelming majority in Moradabad had prescribed uniforms for children; however, very few government schools reported the existence of this practice. (4) School participation of children: (a) In Hardoi, four out of five children in the 6-11 years age group and three out of four children in 11-14 years category were enrolled in school. The corresponding figures for the same in Moradabad were three out of four and one out of two respectively, (b) the study findings revealed that one-fifths of the children aged between 6-11 years in Hardoi and about one-fourths (23%) in Moradabad were out of school, and (c) an overwhelming proportion of out-of-school children had been 'never-enrolled' in school, whereas only about one-eighths of them were school dropouts. (5) Enrolment trends: (a) The gross enrolment ratio (GER) for Hardoi and Moradabad was similar at 103; while the net enrolment rates (NER) were 80 and 73 respectively, (b) an overwhelming majority of children enrolled in primary classes were in government schools. The contribution of different types of schools to the overall enrolment in primary classes was as follows: government schools (75-79%), private (recognised) schools (15-17%), private (un-recognised) schools (6-8%), and (c) no marked gender difference in the enrolment of children in different types of schools was observed. However, significant differences among different social groups were found. The participation of SCs in government schools was higher compared to their participation in private schools. (6) Attendance Rate: School attendance of children in primary classes was found to be impressive. Over 75% of children, both and girls, enrolled in different types of schools attended classes regularly. The attendance rates were marginally lower in government schools when compared to private schools. {ED/12}

SRIVASTAVA, A.B.L. 1998. **Study of lateral entry in DPEP districts of Haryana.** *New Delhi: Research, Evaluation and Studies Unit (RESU), Ed.CIL.*

Objectives: (i) To estimate the percentage of children who are admitted directly in a government or recognised private school in classes other than class I in the DPEP districts of Haryana, (ii) to estimate the percentage of pupils who are admitted late, who repeat grades and who dropout from school in these districts, and (iii) to find out the reasons for lateral entry and grade repetition.

Scope and geographical coverage: Hisar, Kaithal and Jind districts of Haryana.

Methodology: A cluster sample of 207 schools (90 in Hisar, 56 in Kaithal and 61 in Jind) was selected; the sampling fraction being between 11% and 14% in these districts. Four forms were devised for data collection, the main one being the school form in which enrolment, number of repeaters, late entrants, lateral entrants transfers *etc* were recorded for each class. Data analysis was carried out to determine the percentage of late entrants (those admitted after 30 September) and of lateral entrants (those admitted for the first time directly in classes II to V). Also the repetition and dropout rates were calculated after making correction for late entry and lateral entry cases.

Major findings: (1) The percentage of late entrants was highest in class I (10.8% in Hisar, 4.5% in Kaithal and 6.8% in Jind out of total enrolled in class I). (2) The percentage of children admitted directly in classes other than class I was highest in class V (4.1% of the total enrolled in class V in Hisar, 5.2% in Kaithal and 5.2% in Jind.) (3) The dropout rate in class I which was negative because of the late entrants being ignored, was found to be 6.8% in Hisar, 5.2% in Kaithal and 4.5% in Jind. (4) Corrected values of dropout rate in classes II-V were found to be a little higher when correction was made for lateral entry cases. The repetition rates reduced marginally, but they were not affected much when correction was made for late admission cases. {ED/13}

SRIVASTAVA, A.B.L. 1999. **Internal efficiency of primary education in phase I DPEP districts.** *New Delhi: Research, Evaluation and Studies Unit (RESU), Ed.CIL.*

Objectives: (i) To provide indicators of internal efficiency for primary education in the DPEP phase I districts based on the latest available EMIS data, (ii) to discuss the implications of repetition and premature dropping out from school on the wastage of pupil-years and per pupil cost, (iii) to compare the internal efficiency and dropout rates of the years 1995-96, 1996-97 and 1997-98, for the districts for which the required data were available, (iv) to provide the internal efficiency indicators of the state totals of DPEP districts where possible, (v) to estimate the drop-out rates by the traditional method and to assess the change in the drop-out rates in the recent years, and (vi) to determine the overall repetition rates for the DPEP districts and to examine changes in these rates over the period 1995-96 to 1997-98.

Scope and geographical coverage: 42 phase I DPEP districts spread over seven states.

Methodology: The DPEP-EMIS data on enrollment and repeaters of the years 1995, 1996 and 1997 was used. The Reconstructed cohort and Apparent Cohort methods were applied to derive the indicators of internal efficiency such as Coefficient of Efficiency and Cohort drop-out rate for 42 districts of phase I. These indicators were derived for boys and girls separately and gender disparity in drop-out rates was also studied.

Major findings: (1) The Coefficient of Efficiency was over 80 in 18 districts, between 70 and 80 in 13 districts and below 70 in the remaining 9 districts of phase I. (2) The Cohort drop-out rate was below 10% in 7 districts, between 10 and 20% in 10 districts, between 20 and 30% in 7 districts, between 30 and 40% in 7 districts and between 40 and 60% in the remaining 9 districts. Most of the districts in which drop-out rate was high were in Assam and Madhya Pradesh. (3) The overall repetition rate was below 5% in 15 districts, between 5 and 10% in 14 districts and over 10% in 11 districts. (4) There was some reduction in the drop-out rate in almost all the states over the period 1993 to 1996-97. In Kerala, the cohort drop-out rates were lowest (below 5%) except in one district and in Assam, highest (above 45%). (5) The gender disparity was insignificant in most of the districts. Only in 11 districts, the cohort drop-out of rate for girls more than that for boys by over 5 percentage points. {ED/14}

SHUKLA, SNEHLATA. 1998. **Efforts made in in-service training of teachers in DPEP.** *New Delhi: Research, Evaluation and Studies Unit (RESU), Ed.CIL.*

Objectives: (i) To ascertain the institutional support available, *i.e.* from SCERTs, DIETs, BRCs and CRCs in the states, (ii) what are the areas in which in-service programmes have been organised; what have been the priorities, (iii) what are the bases on which contents of the training programme are decided, (iv) what has been the reach of the programmes in terms of total duration and number of teachers trained, and (v) what has been the expenditure on the training programmes.

Scope and geographical coverage: All DPEP phase I & II states.

Methodology: While all the 14 states that joined the project at different stages were addressed, phase II states have had too little time (1-2 years) for implementing the planned inputs including teacher training. Their efforts have been reported, but information on infrastructure is not, as the same are still being built. After the four overall sections on infrastructure, planning and management, contents covered and evaluation of the trainings conducted by the states, the study also gives a brief write-up about the total system in each state.

Major findings: (1) **Planning and Management**: (a) By and large, SCERTs (Haryana for the phase - I districts, Gujarat, Madhya Pradesh, Maharashtra, Tamil Nadu) decide the training package. They all had the experience of participating in training programmes organised by NCERT particularly, PMOST and SPOT - the two package extended to lakhs of teachers in the recent past. Some states (Assam, Kerala, Karnataka, Orissa, West Bengal) set up special Resource Group, which comprised members of SCERT as well. Experiences of earlier work in some states and those of phase- I states in DPEP influenced the decisions in phase - II states (AP, UP, Bihar, Orissa). Several NGOs too helped in deciding the contents (Eklavya in MP and HP, DEVNET in Haryana, Bihar, (U.P). Teachers have always participated in state level decision making groups, (b) for almost all programmes, training manuals are developed and made available to the MTS; necessary material for developing TLM or designing activity based lessons or to demonstrate specific points is always provided. Textbooks, wherever the trainings were related to them, were provided to the teachers. For other programmes too the training packages were supported by print material for the teachers, (c) in most cases, the duration of training remains the same for groups at various level, (d) efforts have been made in several states to identify the needs of the teachers; 'hard spots' are tackled in some of the packages (Haryana, AP, Maharashtra), (e) Comprehensive long term plans could be seen only in some states, mid term changes were another mater but some states seem to be going piecemeal (TN, WB), (f) Residential teacher training camps are preferred in spite of the difficulties of management and increased expenditure, (g) Larger number of primary school teachers are being inducted as peer group trainers; this in itself is a very positive message to the teachers, (h) Sufficient material is provided in the camps for teachers to plan and carry out activities, (i) Material is mostly developed in regional languages with Orissa as an exception which could be due to dependence on persons from outside the State. Materials are tried out in the field frequently on Mts only, and (j) In most states, percentage of teachers who normally cannot attend a programme is small - around 2% but it is rather high in Assam and West Bengal reaching ten or more percent. (2) **Content**: (a) Teaching for development of competencies as per Minimum Levels of Learning and elaborated in the new textbooks have been devoted the maximum time in the training programmes in phase - I states. Even if the books are not revised strictly on lines of MLLs, training have concentrated on new books wherein activity-based, joyful teaching learning is highlighted, (b) Maximum - more than 50% of teacher training has focused on improving teachers' skills in transacting new curricula revised in some states for achieving Minimum levels of Learning and adopting child centred activity-based approaches, (c) Some highly significant areas in education such as diagnosis (and diagnostic testing) and remedial teaching have been conspicuously absent. (3) ***Evaluation***: (a) Most training programmes were evaluated by the state authority, the focus was largely on organisational aspects and teachers' perceptions. Some studies have gone beyond organisational problems, (b) Efforts in evaluating what teachers have learnt have been made by few states (Haryana, Maharashtra, M.P. Karnataka), (c) Some states have attempted observation of classroom practices, (d) With the exception of Tamil Nadu and West Bengal, all states, both phase- I and phase - II, evaluate their programmes of teacher training/ get them evaluated by other agencies. Haryana programme have been evaluated by SCERT/ SPO as well as by external agencies such as RIE and others, the reports are available. Assam has reported all its programmes evaluated by Academic resource Group, Block Education Officers and supervisory staff. The reports have not been made available. Some in-house evaluation could be based on, occasional observations, (e) Programme organisers in Karnataka evaluated the programmes for self improvement. The feedback received from BRC faculty on the first 10 day programme pointed out that "the training was lecture oriented, trainers were not comfortable with questions from teachers and found it difficult to sustain the interest of the teachers." (4) **Others**: (a) Uttar Pradesh, Assam and Kerala have started to review the curriculum of pre-service training in light of their experiences of in-service training of the last three years. In some states, DIETs gaining from their experience of in-service training have introduced changes in content and methodology of pre-service at their own level, (b) In phase - II states, joyful learning and activity-based teaching have found place most frequently in the training package (Gujarat, Orissa, UP, WB), followed by child psychology / how children lean (AP, HP Orissa), competency-based teaching (Bihar, Gujarat, WB) and attitudinal change among teachers (Haryana, Bihar, U.P.), (c) Some confusion with respect to 'means' and 'goals' has been noted in the field, examples were seen in activity based evaluation.{ED/15}

AGGARWAL, YASH. 2000. **Primary Education in Unrecognised Schools in Haryana, A study of DPEP districts.** *New Delhi: NIEPA.*

Objectives: Broadly, the study attempts to profile the unrecognised schools in Haryana. The specific objectives, however, were: (i) To analyse the growth of recognised and unrecognised primary schools (PUS), (ii) to estimate the enrolment in unrecognised primary schools, (iii) to examine the nature of facilities in the PUS, and (iv) to examine the fee structure and related characteristics.

Scope and geographical coverage: Hisar, Sirsa, Jind and Kaithal (DPEP phase I districts).

Methodology: The survey for the study was conducted in 495 villages spread in 13 blocks in the four districts. A proportionate sample of blocks in each district was randomly drawn. Three blocks (out of a total of six) were selected from the districts of Sirsa and Jind, two (out of five) from Kaithal and five (out of 11) from Hisar. All identified PUS were surveyed in the selected blocks. The data was collected through visits to the school by the enumerators during April/May 1999. Separate instruction module for filling up the questionnaire were developed and shared with the block and cluster co-ordinators. Necessary training for filling up of data capture format was provided to all cluster-level co-ordinators. Data from villages having unrecognised schools was also collected on population distribution and availability of educational facilities within and in the neighbourhood of the village. Similar data from urban areas was not collected. The data from all schools was pooled together to generate the estimate of the number of PUS, their enrolment profile, teachers and their qualifications, sources of funding for each block and district separately. Based on the analysis, estimates were derived for the duplication in enrolment between the government and private primary schools. Pre-primary/ nursery schools were excluded from the study.

Major findings: (1) Individuals established practically all unrecognised schools; some schools were run by societies but their number was very small. (2) The spread of private schools started from urban areas, where aspirations and expectations of parents are generally higher than what the government schools could deliver. (3) The key factor for the success and sustainability of private schools was their ability to generate adequate resources to meet all types of expenditures. (4) Habitations with small population are vulnerable, since government norms do not permit the opening of a formal primary school in habitations with a population of less than 300. (5) Rapid expansion of private unrecognised schools in all districts is the result of several factors including: (a) There is an insatiable demand for primary education that the government schools have failed to capture, (b) despite primary education being free in government schools, the households are not opting for it; instead many of them prefer to send their children to fee charging schools, (c) even for children attending government schools, the parents engage private tutor, the cost of which was many times more than the fee charged by unrecognised schools, and (d) proximity of the school would play an important role in the parental choice of a primary or a pre-primary school. (6) The PUS have proliferated more at the primary as compared to the upper primary stage. (7) Haryana DPEP districts recorded the maximum decline in class I enrolment in the last few years, especially between 1997-98 and 1998-99. (8) In the 13 sampled blocks, there were 1,242 recognised schools and 878 unrecognised schools. (9) Overall, the percentage of unrecognised schools was about 48.7% in Hisar, 42.7% in Sirsa, 34.6% in Jind and 30.1% in Kaithal. (10) The penetration of unrecgonised schools is much more in urban areas as compared to rural areas. (11) The correspondence between children attending unrecognised schools and unaided schools based on block-wise average shows positive association; the evidence is vital since it reflects on the overall dissatisfaction with the government schools. (12) Overall, the share of enrolment in unrecognised schools to total enrolment was 23.7%. (13) In comparative terms, the enrolment in unrecognised schools accounted for 31.1% of the enrolment in recognised schools. (14) The unrecognised schools admitted in large numbers that their children were also enrolled in government schools; overall, 31.5% admitted of duplicate enrolment. (15) Reasons for enrolment in multiple schools were: (a) To avail of incentives like books, uniforms and attendance scholarships, (b) to ensure that the child does not face any difficulty in class V examination and is therefore enrolled in both schools, (c) recognition to unrecognised schools is granted at the fag end of the academic year so that their children could appear as regular candidate for the grade V examination, and (d) parents may not even be aware of the fact that the child is enrolled in both the schools. Due to collusion between teachers from recognised schools with those of the government schools, this practice is quite prevalent in some parts of the survey districts, especially in urban and peripheral areas. (16) As a crude estimate and approximation, it was found that about 10% of enrolment may be overlapping between the government and unrecognised schools. (17) The share of girls' enrolment in PUS was far lower than the corresponding value for government schools. The proportion of girls was less than 36% in 8 of the 13 blocks under study. (18) The share of girls is consistently low in all grades. The low proportion at intake level *i.e.* class I needs to be enhanced considerably. (19) Whenever the girls get enrolled in the schools, the chances are that they continue to complete the primary stage of education. (20) Regular attendance of all children was observed to be an important feature of the PUS. The overall attendance rate during the survey period varied from 82-93%. (21) PTR in recognised schools was found to be almost twice as high in unrecognised schools. (22) One of the important reasons for exceptionally large PTR in the government schools was that no fresh recruitment was done in Haryana for the last few years. (23) High PTRs and multi-grade teaching in government schools were mentioned as some of the reasons for the parents' choice for unrecognised schools. (24) Since the provision of teachers is related to enrolment, some felt that there is a tendency to show inflated enrolment in schools near the urban areas so that more teachers could stay in urban areas. (25) The overall PTR for the 13 blocks based on the DISE data was 46.6 as compared to 22.6 for the PUS. (26) Low PTR gives the unrecognised schools the advantage of individual attention to students. (27) Often, it was observed, unrecognised schools were able to achieve low PTR by cutting on teacher costs. (28) Teachers in PUS: (a) Unrecognised schools do not follow a rigorous procedure for the selection of teachers, (b) overall, 24.4% of male teachers and 33.1% female teachers were, at the most, matriculates. Proportion of post-graduates was around 8%, (c) only about 23% of the teachers had undergone pre-service training, (d) on an average, a male teacher in unrecognised school had 12.9 years and a female 12.5 years of educational attainment, (e) the overall average salary for teachers in unrecognised schools was Rs. 731 for male and Rs. 938 for female teachers, (f) in view of the relative inexpensive teachers in unrecognised schools, per pupil cost in government schools is much higher as compared to the PUS especially if the completion rates are considered, and (g) three out of four teachers engaged in unrecognised schools were not professionally trained teachers. (29) School infrastructure: (a) Government schools were better designed with adequate floor area and space for other activities, (b) the quality of construction of unrecognised schools was far better than that of the government schools, (c) facilities like toilets, blackboard, sports equipment, chairs, and tables *etc* were better in unrecognised schools as compared to government schools, (d) unrecognised schools also reported good arrangements for drinking water. Such facilities were not available in all government schools, (e) private schools have not given much attention to the provision of instructional materials and development of library for teachers and learners, and (f) unrecognised schools do not have equipment for teaching of mathematics and environmental science. (30) Reasons for popularity of private schools: (a) The most important factor that was ranked first by about 40% of school principals/ teachers in-charge was the absence of English as a subject in government primary schools, (b) another 25% mentioned that sending children to private schools is a status symbol, and (c) distance between school and the residence, followed by the poor quality of teaching-learning in government schools.

Implications and action points: 1. The continuation of the trend in the expansion of unrecognised schools for the next 5-7 years would mean that their number would far exceed the number of government schools and may roughly increase to 1.5 times the number of government primary schools. {ED/16}

AGGARWAL, YASH. 1999. **Trends in Access and Retention, A study of primary schools in DPEP districts.** *New Delhi: NIEPA.*

Objectives: (i) To examine the trends in enrolment and related indicators since the inception of DPEP, and (ii) to raise some issues having bearing on the planning and management of DPEP.

Scope and geographical coverage: Forty-two phase I and 77 (out of 97) phase II districts of DPEP spread over 14 states.

Methodology: The study is based on the data obtained from DPEP districts where District Information System for Education (DISE) has been implemented in the last few years.

Major findings: (1) Civil works (schooling infrastructure *etc*) has largely kept pace with the expansion of enrolment in phase I districts, though the progress of construction has been slow in phase II districts. (2) The average pupil-teacher ratio (PTR) for phase I districts was 38.9 in 1998-99 as compared to 38.1 in 1995-96 and 47.5 during 1998-99 for phase II districts. (3) The share of female teachers in all DPEP states, excepting Kerala, is much below 50%. Tamil Nadu was very close to 50% mark in phase I districts and had already exceeded this threshold in expansion districts. The female representation in teaching workforce was minimum in phase II states including West Bengal, Bihar, Orissa, UP and Maharashtra. (4) About 61.3% schools with at least one teacher were without any female teacher and 18.1 % schools had only one teacher. (5) Under DPEP, the share of single teacher schools declined significantly from 18.4% in 1995-96 to 13.7% in 1998-99 in the phase I districts. (6) At the national level, the primary classes enrolment is witnessing a declining growth rate. The latest trends, based on provisional data, indicate a growth rate of (-) 0.37% per annum between 1994-95 and 1997-98. (7) The enrolment growth, even in formal primary schools, in all DPEP districts taken together has significantly outperformed the national trends. However, there were large state-to-state variations. (8) Based on whatever data on enrolment in private unrecognised schools is available, it could be assumed that about 8-10% children attend such schools. (9) The Gross Enrolment Ratio (GER) based on formal school enrolment in phase I districts increased from 83.9% in 1995-96 to 93.6% in 1998-99. (10) The overall (phase I and II districts) decline in class I enrolment was to the extent of 7.1% between 1997-98 and 1998-99. (11) The analysis of Net Enrollment Ratio (NER) shows that still there were 39 out of 66 districts which had less than 70% NER. (12) Overall, the repetition rates fell from 7.5% in 1995 to 7% in 1996 and 5.2% in 1997. The class I repetition rate was 15.6% which is unacceptably high as one out of six children in class I fails to reach class II. (13) The repetition rates were generally lower among girls as compared to boys in phase I districts but opposite in the case for phase II districts. (14) Under DPEP, the girls' enrolment increased faster than that of boys and consequently the Index of Gender Equity for 23 out of 42 phase I districts had crossed the threshold of 95%, showing near absence of male-female disparities in enrolment. (15) The Index of Social Equity for the SCs has shown improvement both for the phase I as well as phase II districts. (16) Some districts continue to depict high degree of social inequities as far as ST enrolment in concerned.

Implications and action points: 1. The recent decline in class I enrolment needs to be investigated through special studies. 2. Accelerating programme implementation would be needed to improve GER/NER, especially in districts where the total project duration is five years instead of the normal seven years. 3. Strengthening and diversification of EMIS to meet the emerging needs would be a positive step in improving the quality of monitoring. 4. Detailed exercises in teacher rationalisation should be attempted at the block and cluster level in all DPEP districts using DISE data. 5. The need exists for increasing the share of female teachers and rationalisation of their deployment. Also, states should undertake studies to assess the impact on the internal efficiency and important parameters of quality of education. 6. The procedures for household data collection need to be standardised to ensure comparability and reliability of important indicators. 7. Districts with low NER should be taken up on priority basis for micro-planning, community mobilisation and identification of the areas where out-of-school children are concentrated. 8. More intensive efforts would be required to reduce repetition among phase II districts with gender sensitive strategies. {ED/17}

ED.CIL. 1999. **A study on community mobilisation and empowerment for universalisation of primary education - A synthesis report.** *New Delhi: Community Mobilisation and VEC Unit, TSG, Ed.CIL.*

Objectives: (i) To assess the process of community mobilisation & participation and the impact of various interventions to promote the same, and (ii) to identify the strengths and weaknesses of the processes in relation to the articulated strategies, implementation and impact.

Scope and geographical coverage: Morigaon & Goalpara (Assam), Muzafarpur & West Singhbhum (Bihar), Panchmahal & Banaskantha (Gujarat), Bangalore (rural) & Bellary (Karnataka), Kullu & Sirmour (Himachal Pradesh; HP), and Lalitpur & Hardoi (Uttar Pradesh; UP) Districts.

Methodology: The report synthesises the findings and trends in the above six states. In each state, the study covered two districts which were selected in consultation with the State Project Office. In each district, 10 villages with primary schools were covered for quantitative and qualitative observations. The villages were randomly selected in two blocks. The study process began with a two-day workshop in Ed.CIL, where the tools for data collection were developed and the methodology was discussed in detail. A combination of questionnaires, semi-structured interviews, Focus Group Discussions (FGDs) and direct observation from the field were used for primary data collection. Several secondary sources consulted for the study included national/state/district level reports, notifications, past studies, posters, leaflets, articles published in journals *etc*.

Major findings: (1) **Strategies for mobilisation** (a) In order to enhance community mobilisation and participation in primary education, states have followed different contextual strategies and methods. Local culture and traditional folk form through institutionalised structure such as NGOs, BRCs and CRCs were used in various forms to optimise the impact, (b) media campaigns also formed another plank of community mobilisation strategy, (c) in addition, special programmes on radio, production of audio cassettes, printing of newsletters *etc* was also undertaken, (d) micro-planning was also undertaken for mobilisation as well as for promoting intensive participation on part of the community. Teachers and community members trained for this purpose took up micro-planning activities such as social and resource mapping*, identification of out-of-school children, development of a village education register, village education plan *etc*, and (e) in states such as HP, other community organisations such as Mahila Mandals, PTAs, MTAs *etc* have been active in contributing to DPEP activities. (2) **Village Education Committee (VEC):** (a) The VEC has been envisaged as a key institution for community mobilisation, participation and empowerment under DPEP, (b) capacity building of existing structures of community organisations has targeted mainly the VECs in order to enhance a wider participation and empowerment of the community as a whole, (c) structured as well as non-structured interventions have been mainly designed in a cascade model involving BRCs, CRCs and VECs. In most states, the BRC was involved in conducting need-based training of VECs, (d) almost all states focused on sensitising VEC members on primary education, (e) in states such as Karnataka and UP, training is conducted through participatory techniques. Training modules have been developed in most states through resource institutions such as DIETs as well as with the help of NGOs and resource groups formed at the district level, (f) the coverage of VECs varied from state to state - from 50% of the VECs in Hardoi (UP; DPEP II district) to 100% in both the sampled phase I & II districts in Assam, (g) feedback from the field shows that while in some states it has been found to be a useful and essential aspect of the programme, in other states such as Bihar and Assam, the need to have successive rounds of training for better impact was felt, (h) the study brings out that there has been high participation of VEC members including women at VEC meetings. However, the articulation of women at these meetings was limited by the presence of male members, (i) the monitoring of teachers' and students' attendance by the community emerged as positive area of participation. Other areas of participation included micro-planning and use of school improvement grant, and (j) the study indicated the beginning of community awareness and involvement in the teaching-learning process particularly in Assam and Karnataka where integration of local cultural contents in TLM preparations and discussion of academic issues, to some extent, in VEC meetings had begun. (3) **Linkages - horizontal and vertical** (a) While in HP there was an awareness about DPEP amongst the PRI representatives, in other states such as Assam, there was little interface and this required reinforcement. In Bihar there was virtually no interface as the Panchayati Raj system was non-existent, (b) in states such as HP, Bihar and UP, NGOs are involved with community based strategies in the field, (c) instances of VECs networking with other departments/schemes such as social sectors have come to light in the study only in two states namely HP and Assam, (d) a few sampled states have mentioned training of teachers in community participation. In Assam, all the teachers interviewed for the study had undergone training with a module on community participation and the role of VECs. In Gujarat, nearly 50% of the teachers had received this training; in UP, more than half of the headteachers were imparted a 10-day training in the DIETs of the districts concerned, (e) the study showed that efforts have been made to integrate, wherever possible, local, community, cultural and linguistic contexts in school related issues by translating reading materials to local dialects, (f) instances of linkages with schooling by the community have also emerged in the preparation of TLMs using local material, and (g) linkages of VECs have clearly been established with BRCs and CRCs as these institutions are involved particularly in training VEC members across all the states. Institutions at district level such as DIETs and DPOs are involved in areas such as training module development and training of master trainers.

Implications and action points: 1. Societal structures and caste configurations still largely dominate the dynamics of VEC functioning. This needs to be constantly addressed with strategies focussing on larger issues of social equity. 2. Momentum of community mobilisation and community participation strategies need to be sustained. 3. There is a need to move training strategies beyond the frame of orientation and role familiarisation. The place, timing, duration and content need to be constantly assessed and made relevant to various stages in the programme. 4. Responses of community organisations in respect to primary education needs to be prioritised. For this, participatory processes should extend to varied functional interventions of DPEP. 5. States need to systematically conduct case studies of process documentation of successful examples for wider dissemination. {ED/18}

ED.CIL. 2000. **Bringing girls centre stage, Strategies and interventions for girls' education in DPEP.** New Delhi: Gender Unit, TSG, Ed.CIL.

Objectives: (i) To compile the range of strategies and interventions for girls' education being implemented by the different DPEP districts, and (ii) which in turn would provide insights into the methods employed to translate strategies into action.

Scope and geographical coverage: DPEP states/districts.

Methodology: Essentially a desk research, the study is the outcome of extensive data search that includes gender and social assessment studies, relevant reports and studies, perspective plans and EMIS reports. Feedback from field visits was also drawn upon. Inputs sought from the states on the basis of a checklist specially devised for the purpose helped in updating the information and authenticating the details of the study.

Major findings: (1) The proportion of girls' enrolment in the total enrolment in DPEP I districts has either remained the same, as in Kerala, or has steadily increased over three years (1996-99), according to EMIS data for the same period. (2) In the expansion districts of DPEP I states, the proportion of girls' enrolment has remained constant over the period of reporting in Kerala, Madhya Pradesh and Tamil Nadu. There has been an increase in Assam, Andhra Pradesh and Maharashtra. The decline in Haryana and Karnataka is a matter of concern. (3) In the DPEP II states and Bihar, there has been an increase in the proportion of girls in most states but in some, the same level of enrolment has prevailed during the years being reported. Girls' enrolment has remained considerably low (below 45%) in Bihar, Gujarat, MP and UP and the gender gap in enrolment is highest in these states. (4) An all round improvement in girls' participation was observed. Their share increased from 43.8% in 1997-98 to 44.6% in 1998-99 according to the data of 75 districts. (5) The rate of change varied from district to district. There was no district for which the share of girls' enrolment had declined by more than one percent. (6) The Index of Gender Equity (IGE) showed considerable improvement between 1997-98 and 1998-99. The number of districts with IGE greater than 95 increased from 31 in 1997-98 to 35 in 1998-99. Also there was a decline in the number of districts with low IGE. (7) The only district, for which IGE was less than 75 was Paschim Champaran (Bihar). (8) Another seven districts for which the IGE was low were: Sitamarhi and Darbhanga in Bihar, Banaskantha in Gujarat, Shivpuri and Sidhi in MP and Moradabad and Sidharthanagar in UP. (9) As per EMIS data (1996-99), girls comprise the smaller segment of the total number of repeaters; the proportion of girls among repeaters was lesser than the proportion of girls enrolled. (10) In 1997, in 24 out of the 40 districts, the coefficient of efficiency in the case of girls was almost the same as that of boys, the difference between the two being less than 3 points. (11) **Female teachers**: (a) The proportion of female teachers in the DPEP districts has been rather low and continues to be so over the three years being reported. The growth rate of female teachers has not been significant, (b) the representation of female teachers stood at 33% or more in Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala and Tamil Nadu, (c) among the other states, the proportion of female teachers was as low as 17% in West Bengal, 22% in Bihar, 23% in Orissa, 25% in MP, 26% in Assam & UP and 27% in Maharashtra, and (d) as compared to the formal schools, there is larger proportion of female teachers in the alternative schooling centres.

Implications and action Points: 1. While there have been substantial gains in enrolment of girls, their retention and achievement levels merit attention. 2. The classroom processes need further scrutiny to find ways of ensuring 'girl-friendly' learning environment in the schools and classrooms. 3. Though community commitment for girls' education has reached great heights in certain pockets, community involvement in school processes needs further impetus. 4. Some very successful models experimented with by the States, as detailed in this study, could be drawn upon and adapted across the programme states. {ED/19}

ED.CIL. 1999. **Expenditure analysis, DPEP: Phase I**. *New Delhi: MIS, TSG, Ed.CIL.*

Objectives: To analyse the expenditure pattern in phase I districts over time, data for which is now available for five years.

Scope and geographical coverage: 42 DPEP phase I districts.

Methodology: Over the years, the states have been providing expenditure in several sub categories as per the Project Management Information System which forms the basis of the present analysis. Expenditure trends in the five categories such as civil works, management 'Others' category have been analysed over five years.

Major findings: (1) **Trends in expenditure**: all India (a) Starting with an expenditure of Rs. 19 crore in 42 districts in seven states in the first year (1994-95) of the project, the expenditure under DPEP phase I increased to Rs. 183 crores in the fifth year (1998-1999), (b) the absolute expenditure began to rise from the second year and followed an increasing trend till the third year, (c) after the third year, the total expenditure declined in Madhya Pradesh (MP) and Maharashtra because of a decline in expenditure on civil works. In Assam, Haryana, Karnataka, Kerala and Tamil Nadu (TN) the total expenditure continued to rise in fourth year also, (d) absolute expenditure on the 'Others' category, or 70% category, however, continued to rise in all states, (e) at the all India level, considering the cumulative expenditure over five years, expenditure on civil works accounted for 34%, management accounted for 6% and the non-civil works/management activities accounted for 60%, (f) there were wide inter-state variations. For instance, while civil works in Maharashtra accounted for 27% of the expenditure, in MP it was a mere 4% whereas in Assam, Haryana and Kerala it was 10%, (g) at the all India level, the expenditure on interventions other than civil works and management followed an increasing trend over the years both in terms of absolute expenditure as well as in proportion to the total expenditure. In this category, expenditure was highest in category C (formal schools) followed by category A (academic resource support), (h) the next highest expenditure was in category B (non-formal schooling), a large part of which was in MP, and (i) in states other than MP, a major portion of the expenditure incurred was in categories A & C. (2) **Trends in expenditure: State-specific analysis**: (a) ***Assam***: (i) The expenditure on civil works was highest in the second year and began to decline from the third year. Cumulatively, it accounted for 38% of the total expenditure, (ii) expenditure on interventions other than civil works and management increased over the years both in absolute terms as well as in terms of proportion. Cumulatively, 52% of the total expenditure incurred was on non-civil works/management categories, and (iii) for interventions other than civil works and management (the 70% category), a major portion of the expenditure was on category C which is for improving the quality of primary schools. Of the cumulative expenditure in the 70% category, it accounted for 35%. (b) ***Haryana*** (i) The cumulative expenditure on the civil works was nearly 45% of the total expenditure. Around 10% of the expenditure were on management and the rest was on the other school improvement categories, (ii) in the 70% category a major portion of the expenditure was on categories A and C - ranging between 65% (3rd year) and 90% (5th year). The cumulative expenditure on the above categories works out to 81% of expenditure incurred on interventions other than civil works and management, and (iii) expenditure on interventions like alternative schooling, measures for special focus groups and disabled children was not very high. (c) ***Karnataka*** (i) Expenditure on civil works started from the second year and was nearly 55% of the total expenditure, which steadily declined over the years, and the cumulative expenditure on this intervention in the five years works out to 30% of the total expenditure, (ii) the cumulative expenditure on management works out to less than 6% of the total expenditure incurred, (iii) expenditure on interventions other than civil works and management improved steadily over the years and peaked in the fourth year. In fact, more than 64% of the cumulative expenditure incurred under DPEP in the state was on interventions other than civil works and management, and (iv) in the 70% category, bulk of the expenditure was on category A (academic resource centres) and category D (formal schooling). In the second year, more than 80% of the expenditure was on these categories. (d) ***Kerala*** (i) Of the total cumulative expenditure incurred, 32% of the expenditure was on civil works, (ii) expenditure on management was almost stagnant in the second and the third years but increased in the subsequent years. Of the cumulative expenditure, 10% was on management, (iii) in the first year, more than 20% of the total expenditure was on items other than civil works and management but this increased to nearly 80% in the fifth year. From Rs. 4 crores in the second year, this improved to Rs. 10 crores in the fifth year, (iv) of the cumulative expenditure, a little less than 60% (58% to be precise) has so far been incurred on non-civil works/ management categories, and (v) of the cumulative expenditure, 75% was spent on the interventions covered under these categories A & C. (e) ***Madhya Pradesh*** (i) The expenditure under DPEP took off right from the first year (nearly Rs. 12 crores), peaked in the third year at Rs. 119 crores and stood at Rs. 96 crores in the fifth year, (ii) though in the first year 50% of the expenditure was on civil works, in the fifth year the proportion of expenditure on this decreased to less than 10%. The cumulative expenditure on civil works was 33% of the total expenditure, (iii) of the cumulative expenditure, the share of expenditure on management was 4%, (iv) expenditure on items other than civil works and management followed a steadily increasing trend over the years. In the initial two years, nearly 40% of the total expenditure was on this, which improved to nearly 90% in the fifth year. More than 60% of the cumulative expenditure was on non-civil work/management interventions, and (v) cumulatively, 26% of the expenditure incurred on the 70% category was on the academic resource centres. (f) ***Maharashtra*** (i) The expenditure under DPEP took off right from the first year (which was nearly Rs. 4 crores), peaked in the third year at Rs. 35 crores and stood at Rs. 15 crores in the fifth year, (ii) the expenditure on civil works picked up from the second year, peaked in the third year and tapered off thereafter. Of the cumulative expenditure incurred so far, share of civil works was 27%, (iii) expenditure on management has been low in all the years excepting in the third year. Overall, the share of expenditure on management in the cumulative expenditure was 7%. The cumulative expenditure on non-civil works/management was 66% of the total expenditure incurred in the state as a whole, (iv) in the 70% category, major portion of the expenditure was on category C interventions in the first year and steadily became 73% in the fifth year. The cumulative expenditure on this category was 76% of the total expenditure incurred on the non-civil works/management category. (g) ***Tamil Nadu*** (i) The proportion of expenditure on civil works was highest at 65% in the third year and declined to less than 5% in the fifth year. However, of the cumulative expenditure, 41% was on civil works, (ii) expenditure on management was well within the limits; of the cumulative expenditure, the contribution of this intervention was 5%, (iii) expenditure on others *i.e.* on items other than civil works and management, followed an increasing trend over the years and cumulatively was 44% of the expenditure incurred under DPEP in the state. There was no expenditure on this category in the first year but it increased to Rs. 16 crores in the fifth year, (iv) in the 70% category, 62% expenditure was on category C. In the same category, 29% was due to expenditure on category A (*i.e.* interventions for academic resource centres), (v) no expenditure has so far been incurred on measures for special focus groups/interventions for disabled children and other disadvantaged groups. (3) **In addition**, the study also mentions district-specific trends in expenditure for all the states. {ED/20}

ED.CIL. 1999. **Glimpses from the grassroots, A synthesis based on case studies of successful practices at local resource centres in Assam, Bihar, Kerala, Karnataka and Madhya Pradesh.** *New Delhi: Pedagogical Improvement Unit, TSG, Ed.CIL.*

Objectives: To (i) compile a resource pool of various processes that have been initiated through the Block and Cluster resource centres (BRCs & CRCs), (ii) highlight the potential of BRCs and CRCs in providing academic support to teachers, (iii) facilitate cross state sharing *i.e.* learning and transfer of positive experiences, (iv) identify key indicators which contribute towards making the resource centres functional and effective, (v) bring out the factors that limit the effectiveness of the processes identified in providing academic support to the teacher, and (vi) suggest a possible way forward.

Scope and geographical coverage: Assam, Bihar, Karnataka, Kerala and Madhya Pradesh (MP).

Methodology: In each of the above states, at least two BRCs and four CRCs were studied in depth. Resource Centres known to be active and functional were selected with the help of the State Project Office. Wherever possible, a visit to a not-so-successful BRC was also made for comparison and to understand what made a resource centre special. The case studies concentrated on academic support activities other than teacher training. All the investigators were called for a briefing/meeting before field visits. During the field visit, the investigator visited the SPO, SCERT, SRG, DPOs, DRGs, DIETs, BRCs, block resource groups, CRCs, schools (to interact with teachers and children) and concerned NGOs. Efforts were made to attend the monthly meetings of the teachers at the CRC and the meeting of CRC coordinators at the BRC. Informal discussions at SPO, DPO, DIET and visits to schools with the coordinators, attending monthly meetings at cluster and block level helped to document in detail the nature of onsite support extended to teachers. Review of available literature and records of last four to five months at the resource centres was also undertaken. De-briefing meetings after field visits were organised and a detailed report was submitted by each investigator. Some of these reports were shared with all the DPEP states in a national workshop to identify strategies for strengthening block and cluster resource centres.

Major findings: (1) The structure, role and functions of the BRCs and CRCs in the five states seem to have emerged mainly in response to the vision of the overall pedagogical renewal process in each state. (2) Though each state engaged itself in all aspects of pedagogical renewal which included teacher training, textbook renewal, evaluation, TLM development *etc*, they had a different focus determined by its context and vision, which in turn influenced the evolution of its sub-district institutions*. (3) Bihar and Karnataka, for example, gave special importance to teacher training. Not surprisingly, the BRCs and CRCs were largely engaged in training teachers through training packages developed by the state resource groups. (4) In Assam, the interaction between the school and community became the most important aspect of the pedagogical renewal process. Consequently, the BRCs and CRCs, in addition to doing a variety of other things like developing materials and activities, became sites for dynamic interaction among the teachers, resource persons and the community. (5) In both Bihar and Karnataka where teacher training is a major activity, a strong team of trainers is located at the BRC. (6) In MP, the centres function as programme implementation structures, performing academic as well as administrative roles. (7) In Assam, there are as two co-ordinators at the block and one at the cluster level. (8) Block and cluster resource teams which assist the centres in performing the academic and non-academic functions have, for instance in Assam, emerged as resource institutions which play a critical role in eliciting community support for academic and non-academic activities. (9) Resource centres in Kerala are structurally very different. The BRC co-ordinator is supported by 15-17 trainers (depending upon the number of clusters) and an academic co-ordinator who is a DIET faculty member but is stationed at the BRC. Other than providing regular support through school visits, the trainers in Kerala frequently refer to reading material for developing activities for transaction of curriculum and for answering some intelligent questions raised by children. (10) In all the five states, BRCs and CRCs are playing a critical role in the conceptualisation, conduct and organisation of the teacher training programmes. (11) In each of the surveyed states, teachers have been consistently involved in the conceptualisation and implementation of teacher training programmes. (12) These local resource centres have made possible for the form and content of teacher training programmes to be highly flexible. (13) In DPEP, however, the establishment of the local resource centres has created a potential for need-based recurrent training programmes on different issues ranging from MLL, activity-based pedagogy, film-based training on thematic issues to gender, IED and VEC training*. One sees similar experiences in the other four states as well.

Implications and action points: 1. Processes need to be initiated for capacity building of the DIET to provide academic support to sub-district structures and to organise need-based programmes for them. Similarly the BEO needs to be continuously oriented to the processes initiated by the centres. Steps need to be taken further to involve them in programme activities. 2. There was a broad consensus that though BRCs and CRCs could expand their functions to take care of some administrative issues, their academic orientation should remain central. 3. Each state may need to articulate clearly its vision of BRCs and CRCs and the functions they are expected to fulfil. A fresh look at the roles of these centres is important for directed growth. 4. A systematic capacity building effort over time, possibly 2-3 years, which includes all the varying skills that resource persons need is obviously indicated. 5. Resource persons need to understand not just their roles and functions but also basic pedagogic issues *i.e.* how children learn, what motivates them, learning of language & mathematics, management of the classroom and several other issues in great depth. 6. In the resource centres studied, DIETs were not observed to be playing a strong supportive role. {ED/21}

Ed.CIL. 1999. **Meeting challenges, Documentation of positive practices in four DIETs.** *New Delhi: Pedagogical Improvement Unit, TSG, Ed.CIL.*

Objectives: (i) To record the good practices in selected well functioning DIETs in the country, (ii) to identify the enabling conditions within the DIET or at the state level on account of which these good practices have gained ground, and (iii) to share the findings with different DIETs, SCERTs, state government officials *etc* in order to generate thinking and discussion about policy, its implementation and improvement.

Scope and geographical coverage: The respective DIETs in Banaskantha (Gujarat), Karvettinagar (Andhra Pradesh; AP), Gaya (Bihar) and Dharwad (Karnataka).

Methodology: The criteria for selecting a DIET was that it should be a well functioning one and it should have established some positive practices, processes, innovations and so on at the institutional level which would be worth recording and sharing with other DIETs in the country. DIETs were identified on the basis of enquiries from officials and academics at the national level with expertise in this area, discussions with state government/DPEP/SCERT personnel and visits to a number of DIETs including the ones finally selected for the study. An attempt was made to select different types of DIETs. After the DIETs were selected, researchers were identified, mainly from the same state as the DIET. The researchers visited the DIET for a few days during which they held individual and group meetings with faculty and the principal. They also got an insight into the kinds of programs and activities being carried out by the different branches, observed the various infrastructural facilities available in the DIET from the point of view of their utilisation and maintenance, looked at the DIET's publications, reports, annual work plans & budget allocations *etc*. The researchers interacted with the local DPEP office, visited one or two BRCs and CRCs and some schools. At the state level, necessary information was collected from the SCERT. After submission of the studies by the researchers and their finalisation, a two-day workshop was held in Delhi for their ratification and authentication, to make a cross state comparison of the functioning of DIETs, and to draw lessons from the above DIETs in general. Four persons were invited to this workshop from each of the four states - one representative each from SCERT and DPEP, the respective DIET principal and the researcher - in addition to resource persons.

Major findings: (1) The problem of vacancies in DIETs that persists in several states has been addressed seriously only by Gujarat, AP and Karnataka. (2) The problem of frequent transfers has been addressed in concrete terms only by AP - by implementing the three year tenure posting for DIET faculty. (3) On the one hand is the model of complete separation between DIETs and departmental posts, as in Gujarat, while on the other, in the AP model the interchange between the two streams is fairly high. Karnataka has adopted a model which is in between the two extremes. (4) Only AP has been able to show a direction as far as interaction with the field is concerned. DIETs' interaction with schools is fairly satisfactory in the state. (5) Gujarat has taken pioneering steps in giving DIETs the freedom to design their own district-specific teacher training modules. This is perhaps the first attempt of its kind in the country. (6) In terms of financial autonomy, DIETs in Gujarat fare the best. They have ample funds, with the entire central funding and additional funding from the state government and DPEP reaching them timely every year. (7) In Gujarat, a healthy integration was visualised between the DIETs and DPEP at the state level. DIET faculty are involved in the textbook development process, are responsible for creating teacher training modules and preparing master trainers under DPEP. (8) In AP the integration between DPEP and DIETs was not only visualised well but is continuing well too. (9) In Karnataka, DIETs have not been integrated with DPEP, rather there appears to be a division of work between DPEP structures and DIETs. (10) In Bihar, owing to the fact that a large number of principal's and faculty posts are lying vacant, many DIETs have still not become functional. (11) These case studies have revealed that states have not made use of the opportunity provided in the guidelines to conceptualise and evolve their own state-specific models of DIETs. Almost all states appear to have accepted without any modifications the organisational framework of the seven branches as suggested in the guidelines. (12) The situation on the ground, however, reveals that many 'branches' remain inactive even in the best of DIETs. (13) Some clarity on the role of programs like DPEP in respect of DIETs is desirable. The study reveals that the relationship between the two depends mainly on how things have been worked out between the respective state level agencies *i.e.* SCERT and the State Project Office of DPEP. {ED/22}

PRAKASH VED; GAUTAM S.K.S. & BANSAL, I.K. 1999. **Students' achievement under MAS, Appraisal in phase II states.** *New Delhi: DPEP Core Resource Group, NCERT.*

Objectives: The Mid-term Assessment Survey (MAS) was undertaken with a view to identifying the adequacies and inadequacies of the DPEP interventions. However, the specific objectives of the study were: (i) To measure the average performance of students' achievement in the newly generated competency-based achievement tests in language and mathematics at the end of class I and at the end of penultimate class of primary schooling, (ii) to compare the average performance of students' achievement in the BAS tests administered during the initial survey in 1996 with that of students' performance in the same tests re-administered during the MAS in 1999, (iii) to compare the achievement differences in regard to gender and social groups in the MAS tests, and (iv) to study the effect of variables like home, school and teacher.

Scope and geographical coverage: Seventeen phase II districts across Andhra Pradesh (AP), Himachal Pradesh (HP), Gujarat and Orissa.

Methodology: The following tools were employed for conducting the MAS: achievement tests both in literacy and numeracy for class I students, achievement tests both in language and mathematics for classes III/IV students, School Record Schedule, Teachers' Schedule, Student Present Schedule, field notes, training manual and field handbook. Multi-stage stratified random sampling technique was employed for the selection of various constituents of the MAS.

Major findings: (1) In AP, the average achievement of class I students ranged from 69.67% to 82.45% in language and 74.74-85.87% in mathematics. (2) In Gujarat, the average performance ranged from 65.10% to 75.90% in language and 63.15% to 75% in mathematics. (3) In Orissa, the achievement in language ranged from 65.19% to 88.80% while in mathematics it varied from 46.59% to 85.06%. (4) The analysis revealed that the pattern of growth in language and mathematics is quite sequential in all the three states. The distribution of scores for class I achievement has covered all the ranges between 0 and 100 in both the subjects. (5) However, the concentration of scores has been less in the lower ranges and more in the top ranges, which has produced negatively skewed distributions in both the subjects across the states. (6) The average achievement of class III students in the state of Gujarat has not been so encouraging both in language and mathematics. In language, the average performance has ranged from 38.5% to 53.74% and in mathematics from 31.97% to 47.32%. (7) The average performance of the students of class IV in language has been found to be better than the performance of students of class III. (8) While in AP the achievement range varied from 53.13% to 61.67%, in Orissa it varied from 44% to 63.80%. (9) As against this, the performance in mathematics has varied from 40.06% to 52.34% and in Orissa from 19.15% to 22.58%. (10) None of the students in the state of Orissa touched 50% mark in class IV mathematics. (11) Students have displayed better performance at the end of the initial stage than at the penultimate stage of primary schooling. It signifies that the pedagogical renewal process which under DPEP envisages improving teaching learning process from the beginning classes has produced better results and that it will perhaps take some more time before such results are noticeable at the penultimate stage. (12) A comparison of students' achievement on the BAS tests administered during 1996 and in 1999 has revealed that in class I language, 10 out of the 13 districts have exhibited significant hike in students' achievement. While in one district the hike in achievement has been more than 25 %, in 7 districts it has ranged from 10 to 25 %. (13) In class I mathematics, 11 out of the 13 districts have displayed significant hike in students' achievement. Of them, in 4 districts the hike has crossed 25 % mark and in 5 district sit has ranged from 10 to 25 %. (14) A comparison of achievement of class III students on the BAS tests administered in 1996 in Gujarat with that of the same test re-administered in 1999 has not revealed any significant improvement in both the subjects. (15) Instead, signficant decline has been observed in Banaskantha district in language and in all the three districts in mathematics. (16) A comparison of student's achievement in the BAS tests administered in 1996 and MAS 1999 has revealed that all the districts in AP have shown positive trends in class IV language, of them, three have shown significant improvement ranging from 9 to 16 percent. (17) In Orissa, three districts have shown positive trends; of them, two districts have displayed significant improvement in language achievement which ranged from 15-17%. (18) In mathematics, all the districts of AP have shown significant improvement in students' achievement in class IV that ranged from 9-17%. (19) In Orissa, all but one districts have shown positive trends; of them three have displayed significant improvement ranging from 5-6%. (20) The trends of improvement in students' achievement in phase II states are almost similar to that of the trends obtained in phase I states during MAS 1997. (21) The DPEP goal of reducing the differences in achievement between boys and girls in class I on MAS tests in both the subjects to less than 5% has been achieved in 11 out of 13 districts in three states. (22) In class III, gender-wise differences in achievement have been overcome in all the districts of Gujarat both in language and mathematics. (23) Differences in achievement between boys and girls in class IV have been reduced to less than 5% in all the districts in language and all but one district in mathematics. (24) While comparing the differences in achievement between urban and rural students, it may be pertinent to mention that in Gujarat area-wise dichotomy existed only in two out three districts, namely, Banaskantha and Panchmahals. (25) The DPEP goal of reducing the differences to less than 5% between urban and rural students in class I has been attained in 6 out of 12 districts in both the subjects. (26) In class III, both the districts have laid claim to realising the DPEP goal in language and one of the two districts in mathematics. (27) In class IV, the differences in achievement levels between urban and rural students have been reduced to less than 5% in 7 out of 10 districts in language and in 8 out of 10 districts in mathematics. (28) A close examination of differences in achievement between SC and Others in class III reveals that 8 out of 12 districts in language and 9 out of 12 mathematics have realised the DPEP goal. (29) Differences in achievement levels of SC and Others category students in class III have been reduced to less than percent 5% in two out of three districts in both the subjects. (30) In class IV, the differences in achievement levels between SC and Others category students has been reduced to less than 5% in all the 10 districts in language and in all but one district in mathematics. (31) The DPEP goal of reducing the difference to less than 5% between ST and Others category students has been realised in 8 out of 12 districts in language and 6 out of 12 districts in mathematics in class*. (32) In class III, this goal has been attained in both the districts in language and in one of the two districts in mathematics. (33) In class IV, the goal of reducing the differences in achievement between ST and Others has been achieved in 8 out of 10 districts in language and in 7 out of 10 districts in mathematics.

Implications and action points: 1. The spread of achievement scores covering all the ranges both in language at class III signifies that organisation of remedial programmes for low achievers and enrichment programmes for average achievers may increase the levels of learning. 2. In those districts where students' performance is found to be exceptionally good, sustained efforts are required to maintain the tempo of progress. 3. Vigorous intervention efforts are required to boost the performance of students in those districts that have displayed averaged performance. 4. Districts displaying poor performance warrant district-specific research-based interventions. [Project duration: September-October 1999] {ED/23}

Srivastava, A.B.L *et al.* **Study of the support systems and processes which underpin DPEP's pedagogical strategy in six states - A synthesis report.** *New Delhi: Research, Evaluation and Studies Unit, TSG, Ed.CIL.*

Objectives: The study was undertaken to find out how various systems and processes initiated under DPEP for pedagogic renewal are functioning and how the BRCs, CRCs, schools and teachers are perceiving their contribution. However, the specific objectives of the study were: (i) to assess the total set of support activities which is provided from state, district, block and cluster levels and actually received by the school as a whole and teachers, including those planned, but not yet implemented**, (ii) to assess the quality of inputs and interventions on the basis of teachers' perceptions, observations of investigators and interviews of BRCs, CRCs, VECs *etc*, (iii) to understand the support received for improving pupil assessment practices adopted in classrooms, (iv) to understand perceptions of teachers about the quality and appropriateness of support from the academic and managerial structures (DIETs, BRCs, CRCs, Resource Groups at district and block levels *etc*) and community for effective school management (for improvement of the learning environment), (v) to assess the effectiveness of linkages (forward and backward) between various institutions, establishment of feedback mechanisms and processes including supervision system and its effective practice, (vi) to understand the patterns of utilisation of school and teacher grants, and support received for effective utilisation, and (vi) to understand the effect on school performance of other inputs/interventions such as rationalisation of teachers, appointment of additional teachers, new designs of school buildings and construction of new schools, repair of the old ones *etc*.

Scope and geographical coverage: Andhra Pradesh (AP), Assam, Gujarat, Kerala, Madhya Pradesh (MP) and Uttar Pradesh (UP).

Methodology: Three districts each were selected for a detailed study in all the states, except Gujarat, where the study was confined to two districts only. Since the DPEP programme started only in phase

II in AP, Gujarat and UP, the districts covered in these states are all phase II districts. In the other four states, both phase I and II districts were included. In each district, two blocks were chosen and data was collected from five schools in each selected block, except in Gujarat where only 11 schools of the two districts were covered. A set of eight interview schedules was developed to collect data and to obtain responses to specific questions on in-service teacher training, teaching-learning material (TLM), role of DIETs, BRCs and CRCs *etc*, from the state and district level DPEP functionaries, BRC and CRC coordinators, school headteachers and teachers. This was supplemented by observations, informal discussions and case studies by respective state teams comprising of a State Coordinator and 4-6 research associates. The main inputs for pedagogic renewal were the following: (1) In-service training of teachers, (ii) new text books and other teaching learning material (TLM) to make teaching-learning interesting and joyful, (iii) support provided by DIETs, BRCs and CRCs to schools and teachers for improving the quality of education, (iv) school grants of Rs. 2,000 per year for school infrastructure and teacher grant of Rs. 500 per year for preparing TLM.

Major findings: (1) **In-service teacher training programmes:** (a) The in-service teacher training was well planned at the state level in all states by the State Resource Group (SRG) and training packages were developed with the help of experts from SCERT, NGOs and often selected staff from DIETs and competent teachers from schools, (b) Mostly, the cascade model is followed, in which members of SRG train master trainers, who in turn train the teachers, (c) some transmission loss occurs in the process, and what the teachers ultimately receive by way of training is not totally what was intended or planned, (d) most headteachers and teachers were of the opinion that training was the most important contribution of DPEP for enhancing their teaching competence, and (e) what they liked most was the participatory approach adopted in training, the activity-based elements in the training package and the stress on preparation and use of simple TLM/aids for classroom instruction. ***Problems***: (i) The cascade model used for teacher training resulted in transmission loss, (ii) some of the teachers felt that they needed more training in the content, particularly in Mathematics, than what the training programmes had provided, (iii) training for handling multi-grade classes was not adequate (according to most of the teachers in the sample in MP and UP), (iv) training has not yet helped the teachers in adopting child-centred approach in the true sense in most cases, (v) teacher training should help teachers in undertaking remedial teaching for weak students and for taking care of hard spots in learning, (vi) some of the teachers failed to relate the activities and games to specific subject content and competencies that they were supposed to teach using activities and games, (vii) a few teachers in some of the states also pointed out that the quality of trainers needed to be upgraded. Also, more effective use should be made of audio-visual aids/multimedia packages in training. (2) ***Text books***: (i) In practically all the states, new textbooks have been prepared under DPEP with the help of experts and resource persons from SCERT, DIETs *etc*. (ii) These lay emphasis on making interesting presentation of the material and include guidelines for teachers. (iii) Teachers particularly liked the guidelines given for them in the teachers' editions of books or in the textbooks. Problems: (i) In a few cases (e.g. in MP) teachers complained about receiving the books late, (ii) the students, except those who belong to weaker sections such as SC and ST, have to purchase textbooks. When the books are revised frequently, some of the students who bank on buying used textbooks find it difficult to buy new ones, and (iii) in Assam, the need for textbooks in other languages such as Bodo, Bengali and Hindi was felt. (3) **BRC/CRC meetings and visits of BRC/CRC co-ordinators:** (a) While a majority of the teachers felt that the visits were useful (specifically in the samples in AP, Assam, Kerala and MP), some felt that they did not get the needed guidance for solving their problems,

(b) monthly meetings are attended by most of the teachers but in these meetings, often the administrative matters get precedence over academic matters, (c) usually it is only the CRC coordinator who discusses issues; the teachers on their own do not raise any issue or seek solution to problems they may be having in teaching. **Problems**: (i) Many teachers have not yet been able to benefit fully from CRC for solving their problems regarding day-to-day teaching. Some feel that by attending these meetings they get deprived of the time they need for teaching their classes, (ii) also, some complained about not getting any TA/DA for attending CRC meetings and there being no provision even for serving refreshments in the meeting, and (iii) BRCs and CRCs generally acted on instructions received from SPO and hardly took any initiative on their own. (4) ***Pupil evaluation***: (a) Most teachers (in all the six states) were of the opinion that a system of pupil evaluation is not yet in place. In a few states (e.g. Kerala and AP) efforts have been made to introduce systematic pupil evaluation and recording of evaluation results, but so far teachers had not been practising it properly, and (b) no remedial teaching was attempted by most of the teachers. Problems: (i) Concerted efforts nave not yet been made to introduce a system of Continuous and Comprehensive Evaluation (CCE) in schools even though teacher training takes care of it to some extent and states have taken initiative to introduce CCE in some form. (5) **Provision of school grant of Rs. 2,000 and teacher grant of Rs. 500 per year**: (i) The headteachers quite appreciated the provision of Rs. 2,000 school grant, which they received regularly and used for building maintenance, minor repairs and buying furniture, taat pattis (mats) *etc* for the pupils, and (ii) the TLM grant of Rs. 500 too was found to be very useful by the teachers. ***Problems***: (i) In a few cases teachers did not receive the grant in time, and (ii) a few headteachers have complained that the school grant was inadequate. (6) **Other benefits**: (a) Owing to DPEP, there was better school attendance (reported by teachers of AP, Kerala and MP), (b) there was greater cleanliness in schools, (c) learning corners set up in schools (in Assam, Kerala) have proved to be very useful. ***Problems***: (i) It may be noted that many schools are functioning under the handicap of having a very high pupil-teacher ratio and inadequate facilities in the school, (ii) many teachers complained about students being irregular because of their presence required at home during school hours, (iii) there was a need for greater administrative and academic support to research on felt problems and for proper dissemination and utilisation of research findings, (iv) some teachers felt that the training programmes and participation in multifarious activities of DPEP was having an adverse effect on their classroom teaching. {ED/24}

SRIVASTAVA, A.B.L. 1999. **Internal efficiency and cohort drop-out rates primary level of education in phase I DPEP districts for 1996 & 1997.** *New Delhi: Research, Evaluation and Studies Unit, TSG, Ed.CIL.*

Objectives: Broadly, this study assesses the internal efficiency of primary education in the DPEP phase I districts on the basis of the latest available EMIS data. The specific study objectives were: (i) To provide indicators of internal efficiency for primary education in the phase I DPEP districts based on the latest available EMIS data, (ii) to compare the internal efficiency and dropout rates of the years 1996 and 1997 for the districts for which the required data are available, (iii) to estimate the drop-out rates by the traditional method and to assess the change in the dropout rates in the recent years, (iv) to determine annual dropout rates and class-wise repetition and dropout rates for the years 1996 and 1997, and (v) to comment on the changes, if any.

Scope and geographical coverage: 42 phase I DPEP districts.

Methodology: Reconstructed Cohort Method has been used in this study. The indicators reported and discussed in this report are: (a) coefficient of efficiency, (b) Cohort Dropout Rate (derived by Reconstructed cohort method), (c) Pupil-years per graduate, (d) average duration of study for graduates, (d) annual dropout rate, and (e) Crude Cohort Dropout rate (derived by Apparent Cohort method).

Major findings: (1) **Coefficient of efficiency (CE):** (a) Out of the 40 phase I districts, the number of districts with good internal efficiency (CE: 80 or more), increased from 19 in 1996 to 27 in 1997, (b) the number of districts with poor internal efficiency (CE: below 70) decreased from 9 in 1996 to 6 in 1997, (c) in 15 districts, the internal efficiency increased substantially between 1996 and 1997; in another 16 districts, it remained the same; and in 6 districts, CE decreased by over 3 percentage points. (2) **Cohort Dropout Rate**: (a) The Cohort Dropout Rate (CDR) was between 4 and 32 % in majority of the districts (about three-fourths of the districts) in 1997. It was less than 20% in 19 districts and less than 10% in 8 districts, (b) The CDR was 30% or more in 11 districts according to 1997-98 data, whereas it was over 30% in 14 districts according to 1996-97 data, (c) in the middle range (20-29 %), there were 6 districts in 1996 and 11 districts in 1997, (d) in 15 districts, the CDR decreased by over 3 percentage points between 1996 and 1997; it remained almost the same in 11 districts (the increase or decrease being less than 3 percentage points), and increased by more than 3 percentage points in 12 districts, (e) comparing the gender disparity in CDR of 1996 with that of 1997, we find that there has been some narrowing of the gender gap between 1996 and 1997; the districts in which gender gap has increased instead of decreasing are Sirsa in Haryana, Kolar in Karnataka and Tikamgarh in MP, (f) the crude CDR (CCDR) was below 20% in 21 out of 40 phase I districts in 1997. In majority of the cases (60% of the districts, to be exact), it is between 4 and 32%, (g) comparing the CCDR of 1997 with the crude cohort drop-out rates derived simply by comparing the grade I enrolment of 1993 with grade IV enrolment of 1996 or grade V enrolment of 1997, we find that there has been significant reduction in dropout rates in majority of the districts, (h) it has decreased by more than 4 percentage points in 25 out of 40 districts, that is, nearly two-third phase I districts, (i) the decrease has been in the range of 4 to 20 percentage points in most of these districts, (j) CCDR was below 20% in 8 districts in 1993 but it was below 20% in 21 districts in 1997. {ED/25}

YOGENDRA. 1999. **Reaching out further, Para Teachers in primary education, An in-depth study of selected schemes**. *Rajasthan: Bodh Shiksha Samiti, Jaipur.*

Objectives: Broadly, the study researches the role, problems and prospects of para teachers in order to be able to make policy recommendations at the national level with regard to their efficacy in the universalisation of primary education. The specific objectives of the study, however, are to examine: (i) the nature of school and school management, its effectiveness and the nature of role (space) provided for the para teacher therein, (b) the efficacy of the para teacher's role in ensuring quality and equitability in providing primary education, (c) the desirability and viability of para teachers in a system considered as an alternative to the mainstream school system.

Scope and geographical coverage: Himachal Pradesh (HP), Madhya Pradesh (MP) and Rajasthan.

Methodology: Using the case study method, is an in-depth probe into five programmes/schemes in three states: (a) Shiksha Karmi Programme, Rajasthan, (b) Alternative schooling programme and Education Guarantee Scheme and Shiksha Karmi Yojna in MP, (c) Volunteer Teacher Scheme, HP.

Five districts, with one block from each, were identified in Rajasthan. Four districts were selected in MP, taking one block from each while in Himachal two districts with three blocks - one from one district and two from the second - were selected. The number of para teachers included in the sample was 32. The number of regular teachers from regular schools, situated in the vicinity of the selected para teacher schools, was 27. Thus, 59 teachers were covered. It must be underlined that regular teachers and regular schools were included only as a referral point wherever required. The information/ data collected can be classified into three categories. First, that which defines and also influences directly or indirectly the nature and quality of the para teacher's role. Second, that which throws light on the efficacy of the para teacher's role in the process of universalisation of education and third, that which provides information on the social context in which a para teacher operates. Under these three heads the data/information related to each was processed and analysed. The analysis included: (i) the assumptions underlying a particular idea/phenomenon, (ii) reality as manifested in the case studies, and (iii) the conclusions followed by recommendations.

Major findings: (1) **Para Teacher**: (a) In terms of the minimum prescribed qualifications, there is no difference between a para teacher and a regular teacher except in the Shiksha Karmi Project in Rajasthan, (b) by and large, classroom transactions were uniformly poor, but more so when conducted by para teachers with lower qualifications, (c) a para teacher who is a local, has better linkages with the community, the school manned by her/him functions regularly and since para teacher schools function in areas populated by marginalised sections, both para teacher and school occupy a distinct position symbolic of the progress and upliftment of the community itself, (d) voluntarism, an essential part of the very concept of these programmes, does not seem to work with para teachers, (e) the low salary, combined with the contractual nature of their job, has been the major source of discontent and this has led to de-motivation among them, (f) the community's involvement in the recruitment procedure is a positive aspect and the first step towards realising the concept of community ownership of the school, (g) caste, gender and community identities were found to overwhelm the liberal outlook expected of a teacher, (h) while pre-service and in-service training was generally regarded as a positive professional input by para teachers, in practice these inputs remain largely ineffective, and (i) the situation with regard to regular teachers in terms of classroom transactions was also found to be equally disappointing. (2) **Community**: (a) The study found that the education offered by these programmes was not geared to the needs and aspirations of the community and to the socio-cultural and physical environment of the children, (b) the participation of the community in school affairs is not as active as it should be in any of the 21 para teacher school studied, (c) however, the schools did not utilise the intellectual resources and talents available in the community, (d) the para teacher schools were found to be grossly lacking in appropriate physical infrastructure and a satisfactory school environment for carrying out effective and efficient teaching learning, (e) ***observation of classroom processes and classroom culture by the research teams in all the 21 para teacher schools and 12 government schools included in the study showed that the traditional methods of teaching from textbooks, rote learning and corporal punishment were the common features everywhere, (f) there was a great emphasis while training and during workshops of all the programmes, on the use of innovative TLM and activity-based teaching, but for one or two exceptions, these were not being used, (g) in many para teacher schools, neither daily timings nor the annual school calendar suited the children or the community. It was found that the community was not consulted before taking such decisions in these cases, (h) it was observed that the role of the VECs in school management was limited to non-academic aspects only. Also, the way in which the VECs have been constituted does not make them fully representative in character and therefore, not as effective as they should be, (i) the performance of students in classes III and V in the sample para teacher and government schools in Hindi and Mathematics was found to be poor, and (j) learning achievements of class V were significantly lower than class III in all the schools where learner's performance was evaluated, especially in Mathematics.

Implications and action points: 1. There is a need to lay greater stress on para teacher's academic competence to provide quality education up to class V, and to this end it is necessary to develop parameters of minimum academic competence required of them. 2. Para teachers need to be trained as educational activists. 3. A locally relevant core curriculum, along with TLM, needs to be developed so as to linked with the main body of curriculum wherever possible and required. 4. Members of the local community possess many skills such as arts and crafts. These skills may be used as a resource in the school for the teaching learning processes. 5. There is need for a more intense interaction between the para teacher and parents. {ED/26}

NCERT

Goel, S.K. 1996. **A study of mathematical language needs of students of classes I & II for smooth transaction from concrete to abstract stages of comprehension of mathematics teaching.** *Orissa: Regional Institute of Education (NCERT), Bhubaneshwar.*

Objectives: (i) To identify various task levels and primary descriptors for each level, (ii) to identify various learning problems related to arithmetic difficulties, (iii) to identify the types of arithmetic errors and specific error patterns, (iv) to construct a test to effectively assess specific arithmetic skills, (v) to design appropriate remedial teaching skills, and (v) to compare the performance of children in rural and urban schools.

Methodology: The sample of the study comprised 300 children of classes I & II studying in rural and urban multi-grades with poor academic achievement in Maths were included in the study.

Tools-Booklets were prepared for standards I and II in which key mathematical competencies were listed. It contained various problems on shapes, sizes, lengths, positions, number concept, addition, subtraction, place value, time concept, money concept, *etc* were prepared at representational and abstract levels. A wide variety of concerted aids in the form of coloured beads, blocks, marbles, rods, discs, number boards, abacus, measurement devices, cards and charts, geometric shapes, coins and currency notes, model clock, *etc* were used as intervention strategies.

Major findings: (1) The performance of students at representational level was better then their performance at abstract level. (2) Students performed better at concrete level than representation and abstract levels. (3) The following learning problems were identified related to arithmetic difficulties: (a) memory problems, (b) reading problems, (c) language problems, (d) cordiality problems, (e) symbol confusion, (f) inability to group sets, (g) ordinality problems, (h) lack of the concept of place values, (i) inability to subtract, and (x) lack of mastery of computational skills.

Implications and action points: 1. The study shows that children with arithmetic disabilities make little or no progress and the main reasons for this include poor teaching, ill-prepared teachers, improper materials, and inadequate sequencing. It would be helpful if teachers understand the developmental nature of arithmetic, learn how to provide appropriate instruction for easy concept and employ behavioural principles. 2. Parents can help their children's mathematical development by participating in a home study programme that complements the classroom curriculum. 3. Remediation should focus on basic facts, computational processes, and application to practical problems. For this it is essential that: (a) concrete experiences be provided to children, (b) drill on simple combinations (addition/subtraction) should be provided, (c) traditional role activities are de-emphasized, (d) a structural sequence of skills with associated activities appropriate for each task and concept are used, (e) individual and small group instructions for activities at each skill level are used, and (f) dependence on the use of written materials and worksheets are reduced. {NC/01}

DASH, P.C. 1996. **Effects of Instructional strategies on the situation processes of primary school children in arithmetic problems.** *Orissa: Regional Institute of Education (NCERT), Bhubaneshwar.*

Objectives: (i) To develop parallel forms of diagnostic problems tasks for identifying the class III non-mastery children in solving arithmetic problems, and for analysing the errors committed by them, (ii) to develop remedial instructions for tryout with non-master children for improving their problem solving ability, and (iii) to find the effects of remedial instructions in the achievement of master level performance among these children in solving arithmetic problems.

Scope and geographical coverage: Nayapalli village, near Bhubaneshwar, Orissa.

Methodology: Out of 11 government-managed primary schools in the vicinity of RIE, Bhubaneswar, the IRC village primary school, Nayapalli was selected randomly for conducting the study. From the total 91 class III children of this school, a sample of 60 children (42 boys and 18 girls) were drawn randomly. The following tools were used in the study: (a) *diagnostic problems tasks*: Two parallel forms of problem tasks consisting of 15 items in each were constructed for the purpose of identifying incompetent problem solves as well as for getting pre-test and post-test measures before and after remedial treatments. The 15 problems in each of parallel tasks were classified into 5 problem classes such as 'equal groups', equal measures', 'rate', measure conversion' and 'multiplicative conversion'. These classes were been identified as measuring real world problems on multiplication and division. Again in each of these 5 classes of problems were further divided into 3 types depending on problems on multiplication fact, division by multiplier, and division by multiplicand. Thus all these 15 problems were quite distinct in measuring problem solving behaviour of class III children in 15 distinguished sub-competencies rather than repetitive problems occurring as practice exercises in text books. (b) *Instructional Material*: A set of 30 self-learning activity sheets, two for each type of problem situations were developed following heuristic search strategies of problem analysis and transformation. Each pair of these activity sheets were designed by the investigator by analyzing each problem situations, specifying the knows and unknowns, decomposing the problems into sub-competencies, finding easier and related analogous problems, visualising the problems with drawing, *etc*. It was expected that these activity sheets would help the children in transforming the original problems until a familiar routine task emerges for which the children have ready-made solutions. The teaching programme using above activity sheets were provided to non-masters in small groups depending on their specific needs as per the instructions given in the cover page of activity sheets. The teaching programme continued for eight working days taking 1-1/2 hour in the morning and one hour in the after-noon each day in regular classroom teaching condition. After instructions were over, the second parallel problem tasks were administered among all the sample children as post-test and the scores obtained were compared with the first parallel task scores which served as pretest measures.

Major findings: (1) To evaluate the effectiveness of the remedial intervention in solving different types of problems on multiplication and division, a comparison was first made between the percentage of successful problem solves before and after remedial treatment each of the five classes of problems. The critical ratios of the differences in percentage reveal significant differences on problem types 'multiplication' belonging to the problem class of 'rate' ($Z = 5.13$, $P < .01$), of multiplicative conversion (z=9.33, P<.01). The significant differences in percentage were also observed on problem types 'division by multiplier', of 'rate' (z=5.86, P<.01), of 'measure conversion' (z=6.25, P<.01). (2) The similar findings on problem types 'division by multiplicand', of equal group' (z=4.63, P<.01) of 'equal measures' (z=3.38, P<.01), of Rate (z=3.67, P<.01), of measure conversion (z=4.63, P<.01) of multiplicative conversion (z=6.25, P<.01) are also found significance. (3) The percentage differences on problem types multiplication, division by multiplier of the problem classes of 'equal group' and equal measures were not found significant as a result of instruction. Although, the differences in percentage were not statistically significant but the data reveals some improvement of children in mastery level attainment. In problem type 'multiplication' of problem classes equal group and equal measures percentage of increase of mastery learners were from 97% to 100% and from 85% to 92% respectively. Similarly, in problem type 'division by multiplier' of the same two problem classes, the percentage of increase were from 77% to 88% and from 70% to 85% respectively. Statistically, these non-significant results may be attributed to the facts that these problems were easier items which resemble routine tasks occurring in children's books. Hence, the overall instructions were quite effective in increasing the percentage of successful problem solvers in 11 out of 15 problem tasks significantly and the rest 4 to a lesser extent. (4) To examine further the effects of instruction on the general performance of all 60 children in the solution of problems on multiplication and division competencies, the mean achievement scores as well as the solution time in minutes during pretest were compared to the corresponding mean values of post-test scores. This was done by finding t-values of the correlated mean differences, which reveals that average performance of children after remedial instruction is significantly higher than the same before instructions (t= 4.03, df = 59, P<.01). Moreover, the average solution time in minutes the children take to complete the problem tasks after remedial instruction is less than the same before instruction (t=12.89, df =59, P<.01). (5) These results reveal that instructions through self-learning activity sheets using heuristic search strategies not only develops the problem solving ability of class III children but also increase the tendency of those children to be engaged more deeply in their general mathematical activities. In short, the interventions have been quite effective in developing a mathematical disposition among young mathematics education which is now recognised as the ultimate goal of mathematics education.

Implications and action points: 1. Workshops for elementary teachers at the DIETs level should be conducted in which the research procedures, materials and results of the study should be first discussed and explained to the participants. After interactions with the teachers about the pros and cons of its implementations, these teachers may be encouraged to select different MLL competencies in mathematics for classes I to V and to develop diagnostic task items for tryout with the children in the practicing primary schools attached to the DIETs. On the basis of children items of competencies should be identified. 2. In another workshop the teachers may be assigned different contents, in which most of the children face difficulties. These teachers should be required to devise teaching strategies using heuristic method of problem analysis and transformations in the form of self-learning activity sheets as has been illustrated in the present main research report in different difficult content areas assigned to them. The DIETs must preserve all such innovative materials developed by the teachers in classified orders for use in classrooms. After all such materials are ready in different workshops, they may be submitted to the Education Department for duplication and supply to different schools for their use either in multi-grade classrooms or large classrooms for creating better learning in mathematics. {NC/02}

Subramaniam, K.B. & Ram Singh, A.K. 1996. **A study of the mistakes committed by students in the application of different mathematical skills and developing preventive and remedial teaching strategies using metacognitive approach for qualitative improvement in teaching of mathematics.** M.P.: Regional Institute of Education (NCERT), Bhopal.

Objectives: (i) To identify the mistakes committed by children in mathematics in grades II and III, (ii) to analyse the sources and causes of these mistake and to identify the emerging patterns/trends, and (iii) to evolve instructional strategies as preventive measures for wider dissemination among the teachers and learners.

Scope and geographical coverage: Sehore and Bilaspur districts of MP.

Methodology: The data were collected from eight government primary schools in the districts. Each school was visited on three consecutive days. On the first day, test in mathematics was administered to children. These children were interviewed on the second day. On the last day, teachers committed by children were identified, analysed and classified through a workshop and the recorded diagrams were scanned. Finally a compendium of mistakes was prepared.

Major findings: (1) The students committed six types of mistake in addition, eight types of mistake in subtraction, 10 types of mistakes in multiplication and six types of mistakes in division. (2) During the interview, most of the students felt that paucity of time to solve the test items, uncomfortability with subtraction, multiplication and division, carrying over problem, copying habits, presentation of test items in different mode, problems in remembering tables, *etc* were the possible reasons of their poor performance in the test. (3) Some students felt that due to confusion between multiplication and addition signs, forgetfulness of the procedures, lack of opportunity to write on the note book *etc*, they committed mistakes in the test. (4) Poor concept of: carrying over, zero & multiplication, introvert behaviour, lack of writing skills, *etc* were observed as possible causes of mistakes committed by students. (5) The teachers of the schools cited home environment, SES, physical facilities in the school, extra workload on teachers, lack of interest, motivation and discipline, large size of class, general promotion policy, *etc* responsible for the poor performance of children in the test.

Implications and action points: 1. Comprehension of mathematical concepts become easy when taught using concrete materials, idea of commutative, test analysis and simple to complex procedures. 2. Mistakes committed by children in mathematics be taken separately for remediation. 3. Remediation of each mistakes be followed by type of mistake, remark on it and discussion on it. 4. Children and teachers (teaching to those children who commit mistakes) be interviewed individually to get an idea of the other causes of the problem. {NC/03}

Basavayya, D. & Patnaik, S.P. 1997. **Development of training package in mathematics for primary teacher trainers.** *Karnataka: Regional Institute of Education (NCERT), Mysore.*

Objectives: To (i) identify the difficulties of students in learning mathematics in class I, (ii) identify teachers' problems and difficulties in teaching mathematics in class I, (iii) study the extent of attainment of MLL competencies by different students groups, (iv) develop relevant raining package and try it out, and (v) evaluate the effectiveness of the package.

Scope and geographical coverage: Kurnool (DPEP) District in Andhra Pradesh.

Methodology: This study was based on sample survey. Fifteen schools were selected from six mandals keeping in mind SC/ST population, low/high enrollment, low enrollment of girls by using two-stage stratified cluster sampling technique. The required information was obtained from the selected students who had just completed class I and entered class II, and teachers teaching mathematics in class I in these schools. In all, 201 students, randomly selected and 15 teachers were included in the study. Based on the MLLs of class I mathematics (specified in MLL document of NCERT), a diagnostic test was prepared and administered to the students to identify the difficult competencies. A specially-prepared questionnaire was used for identifying the problems/difficulties faced by the teachers in teaching mathematics at primary level. In addition to these tools, the investigator also personally interacted with the teachers to obtain more information and required clarification on some of the aspects. A training package containing child-centred activity-based teaching strategies to teach different MLL competencies of class I mathematics was prepared. The same was evaluated for its effectiveness in achievement of students of mathematics in class I.

Major findings: (1) Except in the following four competencies, students could not attain mastery level in any of the remaining competencies: counts from 1-20 using objects and pictures, non-standard units of mass (weight; such as stones, beads *etc*) to weigh objects in immediate environment using a toy scale/pan balance, recognise coins/currency notes of different denominations and recognise numerals and matches numbers to numerals from 1-100. (2) Students reported more difficulties in learning the following competencies: (a) states place value of digits in the number 10-20, (b) recognises and names the four basic shapes - circle, triangle, rectangle and square, (c) draws freehand circle, triangle, rectangle and square to demonstrate understanding of basic properties of the four shapes, (d) recognises and classifies various solids in the environment on the basis of their shapes without necessarily mentioning their geometrical names, (e) demonstrates understanding of place value by expanding numbers 10-20 into 'tens' and 'ones' and by expressing the expanded form as a two-digit number, (f) arranges numbers from 1-100 in ascending and descending order, and (g) interprets and writes the symbols +,- and =. (3) Teachers reported difficulties in teaching the following competencies: (a) recognises and names the four basic shapes - circle, triangle, rectangle and square, (b) draws freehand circle, triangle, rectangle and square to demonstrate understanding of the basic properties of the four shapes, and (c) classifies various solids in the environment on the basis of their shapes without necessarily mentioning their geometrical names. (4) Teachers also expressed their difficulties in teaching mathematics in multi-grade setting. It was observed that the teachers were not aware as to how to evaluate the attainment of competencies in mathematics so that they could take necessary remedial measures for weaker students. (5) Keeping in view the students' difficulties and teachers' problems, a training package containing the following aspects was prepared: (a) objectives, (i) guidelines for trainers, (ii) schedule for organising 5-day programme, (iii) different activities to teach different competencies in class I mathematics, (iv) brief write-ups regarding some of the aspects - evaluation, diagnostic tests, multi-grade teaching MLLs and remedial teaching.

Implications and action points: If the teachers are trained as indicated in this training package, the teachers will be able to use suitable activities to teach mathematics in class I to bring qualitative improvement in mathematics achievement of the students. {NC/04}

RAGHAVAN, S.S. 1997. **Development of a training package for teachers based on the identification of teaching-learning difficulties in mathematics in class I of Tamil Nadu schools.** *Karnataka: Regional Institute of Education (NCERT), Mysore.*

Objectives: (i) To identify the difficulties of students of class I in understanding certain concepts in mathematics, (ii) to develop a suitable training package for teachers so that effective learning in mathematics is achieved at class I, and (iii) to evaluate the developed package in schools.

Major findings: (1) An analysis of pre-post test scores showed that there was a significant improvement in students' performance pertaining to all the competencies. (2) In the 11 competencies which were identified as hard spots and on which the training package was developed, there was noticeable improvement in pupils' performance.

Implications and action points: The study suggested a training package which would enable children to learn better and remove the fear of maths from young minds. {NC/05}

SATAPATHY, M.K.; SHARMA, A.L.N. & MISHRA, P.K. 1996. **Development of local specific and activity oriented resource materials for promoting learner centred MLL-based teaching of EVS - II at class III stage in Gajapati district of Orissa.** *Orissa: Regional Institute of Education (NCERT), Bhubaneshwar.*

Objectives: (i) To Identify and collect of information relating to the bio-physical and collection of information relating to the bio-physical and social resource diversities existing in Gajapati District, (ii) to categorise and document the collected information with respect to the existing curricular concepts, reflected in the textbook. The data obtained would serve to provide appropriate baseline information for developing and promoting teaching-learning situations which are local-specific learner-centered for identifying the district-specific MLL and transacting a given MLL competency more effectively by the teacher augmenting the performance abilities of the learners.

Scope and geographical coverage: Gajapati District, Orissa.

Methodology: The study was carried out in 30 primary schools located is seven blocks. Typical schools with respect to student size, medium of instruction *etc* representing the cross-section in a block were selected in consultation with district inspector and sub-inspector of schools. Procedure - The content of each lesson was analysed, and the existing concepts/sub-concepts along with examples and activities were listed. Lesson plans for each topic were prepared and the lessons were taught in the classroom. Due to slow reaction from the pupils, the idea of questionnaire was abandoned. Verbal questions were asked keeping MLL guidelines in view. The reactions were carefully noted. All variations, additional examples and activities noted from different schools were culled together for each concept under a particular topic.

Major findings: More than 200 examples and 100 activities have been listed for EVS II, in class III pertinent to curricular concepts. The suggested supplementary examples and activities besides being useful in transaction of lessons would make learning joyful and interesting.

Implications and action points: 1. The list of suggested examples/activities may be distributed among the teachers of the district in the form of a supplementary booklet for use along with the text book. 2. It may serve as examples for teachers to develop their own variety of activities looking to local environmental resources and children's interest wherever needed. 3. The listed activities/examples may help in the use of primary science kit developed by NCERT. 4. The examples and activities may be useful for production of instructional material/multi-media package and textbook writers to use them as and when needed. {NC/06}

PATNAIK, S.P. & BASAVAYYA, D. 1997. **Development of training package in environmental studies II for primary teacher trainers.** *M.P.: Regional Institute of Education (NCERT), Bhopal.*

Objectives: (i) To identify the learning difficulties of students of class III in EVS II, (ii) to identify training needs of primary teachers teaching EVS II in the same class, (iii) to identify suitable method of teaching learning (activity-based) in EVS II for class-based on training needs of teachers and learning difficulties of students, (iv) to develop training package for teacher trainers based on training needs of teachers and learning difficulties of students, and (v) to evaluate the effectiveness of the prepared training package.

Scope and geographical coverage: Kurnool (DPEP) District, Andhra Pradesh.

Methodology: The present study is based on sample survey. Seventeen schools from six mandals of the district were selected by using stratified random sampling. 269 students who had just completed class III and entered class IV and 17 teachers teaching EVS II in class III were chosen randomly. The tools used for data collection were: (a) criterion referenced test on EVS II based on MLL for class III, (b) teacher questionnaire related to their training needs, (c) teacher questionnaire related to difficulty in teaching MLL competencies of EVS II in class III, (d) proforma for teacher trainers to find out the effectiveness of the training package, and (V) proforma for teachers to find out the effectiveness of the training package.

Major findings: (1) Out of total 38 competencies, none was mastered by the students. (2) The important training needs expressed by teachers were innovative methods of teaching, remedial measures and recording of MLL attainments. (3) Training package had positive effect on qualitative improvement in teaching and learning of EVS II in class III.

Implications and action points: Since the training package consists of guideline for trainers, preparation of schedule for organising the programme, some write-ups related to training needs of teachers and activities related to difficult competencies of EVS II for class III, it would provide proper guidance to the teacher trainers treated to: (a) formatting need-based objectives for conducting training programme related to EVS II, (b) helping teachers to plan suitable activities to teach difficult MLL competencies in EVS II for class III, (c) help to construct and use diagnostic tests and plan remedial teaching based on their difficulties in attainment of certain competencies, and (d) also help teachers to some extent to organise classes in multi-grade context. {NC/07}

SHARMA, P. 1997. **Impact of interventional strategies on attainment of MLL competencies in multi-grade schools.** *Karnataka: Regional Institute of Education (NCERT), Mysore.*

Objectives: (i) To develop a handbook for multi-grade primary school teachers on how to use selected teaching and learning strategies for developing MLL competencies in first language, mathematics, environmental studies (EVS) I and II among students studying in these schools, (ii) to know the results of pre-and post-testing in the above context areas; and (iii) to find out sex and grade differences from the five selected multi-grade schools in the study districts.

Scope and geographical coverage: Kolar and Mandya districts of Karnataka.

Methodology: 130 students (including 58 girls) of classes II, III and IV of five multi-grades schools in the districts were selected for this study. Tools - (a) The tests based on selected MLL competencies in first language, mathematics, EVS I and II were developed and translated in the regional language. These tests were used for pre and post-testing. After pre-test, interventional strategies were used for four months with the help of a multi-grade teacher and a junior project fellow. After the gap of four months, post tests were given to assess the impact of intervention on the attainment of selected MLL competencies of the subjects in the above areas of learning, and (b) interviews of teachers were conducted to collect information about the students' learning styles and interests.

Major findings: (1) Prepared teaching and learning materials helped multi-grade students to learn MLL competencies in Kannada, mathematics, EVS I and II better. (2) Orientation of multi-grade teachers in using peer tutoring, monitorial assistance, self-learning material and direct teaching also had positive impact on organisation of teaching and learning material in multi-grade schools. (3) Teacher's academic background and interest was more influencing factor in helping them attain MLL competencies. (4) Weekly time-table planning and selective sitting arrangement of the students also contributed towards better learning.

Implications and action points: 1. Subject-wise handbook on the basis of basic MLL competencies should be developed with suitable examples to help the primary school teachers understand the concepts of minimum and maximum levels of learning in multi-grade settings. 2. All the primary school teachers should be trained in organising and managing multi-grade teaching in rural, hilly, desert and sub-urban areas as the requirement of each educational setting is different. 3. Trained teachers in multi-grade teaching should not be transferred to single grade teaching as it is loss of the expertise. 4. Short-term training should be organised for primary school teachers to practice teaching strategies in multi-grade settings so that they can develop mastery over these strategies. Most of the teachers used terms like joyful activity but they did not know how to make joyful and child-centred activities, *etc.* They should be given proper training for using peer tutoring, monitoring assistance teaching, use of self-learning material and mixing of more than one teaching strategy. 5. Multi-grade teachers should be helped to develop or should be given bilingual teaching material (home and school languages). Otherwise, young students, most of the time did not understand the language used by teachers in such educational settings. 6. Materials developed should be graded and used. For example, slow learners of IIIrd standard could use the material prepared for bright students of IInd standard. With such graded remedial and enrichment material, teacher could meet with individual differences. 7. Development of enrichment material for MLL masters and remedial material for MLL non-masters should also be developed through bilingual approach and should be graded to support primary school teachers in making use of their time and energy effectively in development of human talents. 8. Mixing of low and higher grade students together on the basis of their performance and cognitive abilities wi observed to be better than sitting arrangement made grade-wise within one room. Multi-grade schools should be helped if other schools provide TLM on a loan basis. Some coordination should be there among the schools located in one area. 9. Multi-grade school teachers should be given enrichment training programme subject-wise so that they could teach content areas properly to bright students. 10. Proper monitoring and feedback should be done so that primary school teachers could correct their mistakes in organising TLM in time. 11. Textbooks of multi-grade teaching should have more visuals and adapted to local needs. It should be in simple language and use bilingual caption for new and difficult words. 12. Teaching materials, worksheets, exercises and evaluation sheets should be designed by teacher-educators for each topic and unit separately to facilitate single teacher in making teaching and learning joyful and meaningful. {NC/08}

DAS, R. 1997. **Management of learning situation by utilising peers and seniors on one/tow teacher primary schools.** *Orissa: Regional Institute of Education (NCERT), Bhubaneshwar.*

Objectives: (i) To assess the learning situation in one-/two-teacher primary schools, (ii) to identify strategies adopted by teachers to manage the leaning situation, (iii) to find out the effectiveness of these strategies through students' achievement, (iv) to identify peer and senior tutors who can help in managing the learning situation, (v) to evolve the strategy for peer and senior tutoring for management of the learning situation, (vi) to find out the effectiveness of this strategy in different school subjects.

Scope and geographical coverage: Some districts of Orissa.

Methodology: For assessment of learning situation, 30 multi-grade schools located both in the urban and rural areas were selected at the pilot study stage. For the purpose of final study, however, the sample size was reduced from 30 to 10. These 10 schools were selected considering various factors like number of teachers and students, number of rooms available, the socio-economic-educational background of the students and the location of the schools e.g. located inside the city, peripheries and *basti* areas. From these 10 schools, 300 students (10 each from grades III, IV and V) were selected at random. Students of grades I and II remained out of the purview of the study as they were considered immature enough to follow peer tutoring strategies. The tools were used in the study: class-room observation schedule, teachers' interview schedule, students' interview schedule, pre- & post-intervention subject knowledge test, intelligence test and leadership ability test. To mitigate the problem of shortage of teachers, superior students were selected by conducting: (a) subject knowledge test, (b) intelligence test, and (c) leadership ability test. Based on the score of these tests, two students each from grade IV and V were selected from each school. The students of grade IV were utilised only for peer tutoring whereas the students from grade V were utlitised both for peer tutoring and senior tutoring in grade III. Forty superior peers and seniors were selected to perform the role of peer tutors and senior tutors. Content areas were identified in consultation with teachers, where peer tutors and senior tutors and senior tutors could impart teaching, before engaging them in teaching. Efforts were made to limit the content areas to the subject knowledge test done before. The teachers were consulted regarding the possible strategies that peer and senior tutors could adopt while imparting training. Efforts were also made to make teaching convenient to both the peer/senior tutors and the students.

Major findings: (1) Pre-intervention and post-intervention achievement tests showed that peer tutoring and senior tutoring could be effectively practiced in multi-grade schools. (2) Results of the achievement test showed that peer and senior tutoring could be practiced effectively in schools where large-class situation existed along with multi-grade situation by engaging peer and senior tutors. This could be done by division of grade into two sections and engaging peer/senior tutors in teaching one section or group of students in separate room/places. This was possible where number of rooms (or free place) available were more than teachers available in the school. (3) Results showed that improvement in achievement level of students was more in case of schools where students' socio-economic level was low and they did not get parental guidance or support in comparison to schools where students' socio-economic level was high/and or parental guidance or support was available. This showed that peer and senior tutoring was more effective in schools of the former category. (4) Peer tutoring not only improved the achievement of learners, it also improved the achievement level of peer tutors in subject areas. (5) Peer tutoring and senior tutoring not only helped in improving the achievement level of students in various grades, it also helped in creating a joyful learning atmosphere in the school. (6) Peer tutoring was preferable and could be practiced more conveniently because of the following reasons: (a) senior tutors may not be always able to give time to their juniors, and (b) peer tutors found tutoring more comfortable and enjoyable than senior tutors.

Implications and action points: 1. Peer tutoring and senior tutoring should be adopted as effective strategies to alleviate the problems of management of learning situation in multi-grade schools. 2. This strategy could also be adopted in large-class situation by dividing the large-class to small sections and allowing the peer/senior tutors (preferably peer tutors from the same section) to manage the class. 3. Peer tutoring/senior tutoring was very effective when number of classrooms available in schools were more than the available number of teachers. This strategy was more effective in schools where the students' socio-economic and educational background was poor. This strategy could be adopted in schools where students did not receive any parental guidance for pursing their studies. 4. Since peer and senior tutoring was a complex and delicate strategy, a training module should be developed for teachers for effective implementation of the strategy in multi-grade schools. In this training module, emphasis should be given on the method of selection of peer and senior tutors. (NC/09}

DAS, P.K. 1996. **Formulation of intervention strategies for effective management of large size classes at elementary level.** *Orissa: Regional Institute of Education (NCERT), Bhubaneshwar.*

Objectives: (i) To identify schools with large class-size where pupil's achievement in mathematics and language was high, (ii) to observe, identify and document the good teaching practices in high achieving schools as compared to low achieving schools of large class-size, (iii) to develop intervention strategies on the basis of identified and documented good practices followed in high achieving schools, and (iv) to try out intervention strategies in sampled low achieving schools.

Methodology: 20 schools with class strength more than 50 students (large size) participated in the study. The good practices of rural achieving schools were observed through an observation schedule. Intervention strategies were formulated on the basis of good practices followed in high achieving schools.

Major findings: (1) There was an overall improvement of pupils' achievement after the administration of intervening strategies in all the five low achieving schools. This confirmed the effectiveness of the intervening strategies. (2) With regard to sustainability and replicability of these strategies, it was found from the field experience by judging the pupils', as well as teachers' participation in the process, that five strategies, namely: (a) alteration in learners' location, (b) partner shuffling, (c) monitorial assistance, (d) co-operative learning, and (e) self-learning were the most effective intervening strategies to promote low achieving schools of large size classes. (3) These five strategies were found to: (a) get immediately accepted by the teachers and pupils because of their easy maneuverability, (b) create curiosity among the pupils, (c) motivate slow learners and back-benchers to come to the fore-front, (d) encourage student-student learning rather than teacher-student learning, (e) inculcate child-centred learning in place of teacher directed learning, and (f) be less tedious and more joyful in its accomplishment.

Implications and action points: 1. The package developed in the study may be tried out in low achieving schools of large size classes. 2. The five strategies of intervention may be tried on priority in low achieving schools of large size classes. {NC/10}

Gupta, I.D.; Aggarwal, I.P. & Malyiya, R. 1996. **Development and field testing of competency-based teaching learning strategies and materials suitable for two-teachers primary schools.** *M.P.: Regional Institute of Education (NCERT), Bhopal.*

Objectives: (i) To re-formulate competency-based strategies designed earlier in a manner and style that practicing teachers prefer, (ii) to validate empirically the acceptability and usability of the proposed strategies and materials by practicing teachers, and (iii) to assess the effectiveness of the proposed strategies and materials in terms of students' participation and attainment.

Scope and geographical coverage: Dhar District of Madhya Pradesh.

Methodology: Five primary schools in one cluster of the district were included in the study. For all the nine teachers of these schools, a two-day seminar-cum-workshop in multi-grade teaching was organised. The workshop included demonstration of strategies, development of practice materials and field testing. The instruments developed and used in the study were: (a) attainment test for grades I & II, (b) attainment test for grades III, IV and V, (c) competency teaching plan for multi-grades, (d) observation schedule, and (e) an opinionaire. Continuous monitoring and supervision of the experiment was ensured for optimum results. The data relating to acceptability and usability of the strategies were subjected to qualitative analysis whereas the data relating to students' attendance and attainment were analysed quantitatively using descriptive statistics.

Major findings: (1) The school profile presented a sad tale as regards the effects of *Shikshak Samakhya*, availability and filling up of vacant posts of teachers. (2) Most of the teachers teaching in multi-grade setting did not have any pre-service training. (3) The teachers felt the need for psychological continuity in class distribution. (4) The teachers were not accustomed to using the blackboard. (5) Teachers were not concerned about curriculum organisation strategies and time-table strategy for enhancing students' participation. (6) Group and pair practice strategy as well as strategies for teacher-free practice materials found support from all the teachers. (7) As regards students' attendance only 20% students in grades I and II and 33% in grades III, IV and V were found regular. (8) Improvement in students' attainment was observed during the experiment across all settings and grades. (9) The status of competency attainment in multi-grade settings on the whole was observed to be unsatisfactory.

Implications and action points: 1. Full-academic-session research attempting all the multi-grade strategies be conducted involving community to the optimum. 2. Various textual materials and other learning materials provided in the general system be adapted to suit two-teacher school settings. 3. A kit of exemplar teacher-free practice material needed to be developed. 4. Short, informative and convincing folders/posters related to multi-grade instructional strategies should be developed and disseminated. 5. Monthly meetings of these teachers organised at cluster level should include demonstration lessons in multi-grade teaching. Success stories may also be shared in these meetings. 6. Training should cover both the teachers to avoid any conflict in this regard. 7. Only those multi-grade strategies be suggested which have been tested and practiced. 8. The posts of teacher in two-teacher schools required to be filled urgently. 9. A comprehensive look at the school premises, school building, storage space, seating arrangement, chalk boards, open space, tree plantation, residential facilities, *etc* were required on scientific lines keeping in view the needs of students and teachers, as well as that of the community. {NC/11}

ANAND, S.P. 1996. **Development of a motivational package to promote teacher effectiveness at primary level.** *Orissa: Regional Institute of Education (NCERT), Bhubaneshwar.*

Objectives: The main objective of the study was to prepare a motivational package for primary school teachers to inspire them to work with a sense of dedication and commitment to a cause.

Methodology: 880 teachers teaching the primary classes in nine types of 96 schools as: (a) six central schools, N=77, (b) six convent schools, N=109, (c) nine private management schools, N=132, (d) two DAVs, N=135, (e) 22 government multi-grade schools, N=55, (f) 12 government primary urban schools, N=61, (g) 17 government primary rural schools, N=123, (h) 18 government upper primary schools, N=152, and (i) four government high schools, N=36 were selected randomly. The tools of data collection included: (a) school observation record, (b) interview schedule for teachers, and (c) A Likert type job satisfaction scale were prepared. They were translated into Hindi and Oriya.

Major findings: (1) Teachers scored significantly high on factors of personal considerations and low on working conditions. (2) The teachers' age was negatively related to job satisfaction. (3) Working conditions emerged as the most significant predictor (74%) of job satisfaction. Contribution of intrinsic motivation was only 26%. (4) Dissatisfaction among teachers in government schools was higher. Teachers teaching in government high schools in primary classes and government upper primary schools were found to be dissatisfied to the extent of 66.7% and 69% respectively. In contrast, these figures for government multi-grade schools, government primary schools (rural) and government primary schools (urban) were found to be significantly as low as 41.8%, 53.7% and 59% respectively. The number of teachers found dissatisfied in central, DAVs and privately managed schools were 49.3%, 58.3% and 41.8%. (5) One-way analysis of variance showed that the type of school in which teachers teach influenced their job satisfaction. (6) Results showed that teachers in different types of schools differ for how do they view teaching children of primary classes. (7) Results showed that convents held a better perception of their status in society and it was substantiated by the central and multi-grade school teachers.

Implications and action points: 1. For achieving UEE, linkage between local bodies, village, block, district, state and central government was needed for effective and efficient supervision and management of elementary education. Teachers needed to be sensitized about their role in the schools. They needed to be motivated and made to understand their responsibilities. 2. The infrastructural support was essential to keep the teacher motivated and feel satisfied. 3. The job satisfaction scale developed in this study could be used by DIETs. 4. The package to motivate teachers should be developed and given in their native languages. {NC/12}

Sharma, S.P.; Gupta, V.P. & Thakur, P. 1996. **Developing a motivational strategy to enhance the enrolment of working out-of-school children in the age group of 6-14 years.** *M.P.: Regional Institute of Education (NCERT), Bhopal.*

Objectives: (i) To identify the most impoverished group of families residing in urban slum of Bhopal city, (ii) to study their lifestyle with a view to learn their attitude towards education of their children, (iii) to ascertain the views of children regarding education and work, (iv) to ascertain views of employers of these children about their education, and (v) to develop educational strategies suitable for these children.

Scope and geographical coverage: Bhopal city, MP.

Methodology: The sample for the study consisted of 50 children, 50 parents and 25 employers. The study was done in three phases, namely, survey and selection of localities, development of tools and their administration, and finally development of suitable motivational strategies. The tools consisted of four questionnaires for: (a) working children, (b) parents, (c) employers, and (d) teachers of neighbouring schools.

Major findings: (1) Most of working children were in the age group of 10-12 years. Very few were in the group 6-10 and 13-14 years age group. (2) About 60% of these children had been to school at some point of time and had dropped out due to various reasons. Only 4% of them had never been to school. (3) Most of them preferred morning hours from 8-10 am for studies. Evening hours were inconvenient since they got tired from work during the day. However, those starting work in early hours preferred evening hours from 8-10 pm. (4) All children were keen to restart/start learning, if situations permitted. (5) These children had developed varied interests based on their work environment. Most of them spent their evenings watching TV. Those TV serials showing fighting, magic or fun were of more interest to them. They enjoyed feature films on TV as well. (6) On holidays, they liked playing games like kite flying, hide and seek, playing marble *etc*. They also enjoyed the company of their friends and talking to them. (7) Children had to work because: (a) it was necessary for them, (b) they had dropped out of school and parents wanted them to be gainfully employed, (c) they could not afford the educational expenses, (d) parents were illiterate and could not complete formalities for admission to school, and (e) school authorities showed non-cooperative attitude. (8) Employers were willing to extend as much cooperation as required to help educate these children. (9) Parents wanted their children to learn employable skills in schools. (10) Parents, especially mothers, wanted their girl child to be educated. (11) Most children were illiterate or had relapsed into illiteracy. But those few boys and girls who had completed secondary education had no work to do. (12) Most of these children belonged to ST and OBC. (13) A majority of the parents were illiterate, daily wage earners had no idea about any form of schooling. (14) Most of these families were living in the city for the last three generations. (15) Many parents felt that education in school would not help their children to earn livelihood. On the contrary, they would start disliking the present jobs if educated in schools. (16) Parents wanted the educational expenses to be borne by the government. (17) Most sampled children worked in tea stalls, hotels or garages. (18) Employers wanted educational activities to take place before or after work. (19) The employers were of the view that there was no immediate use of their education but felt that it would be of great help when they grew up. Education would develop confidence in them to start independent work. (20) Teachers of neighbouring schools blamed the children and their parents for neglect of education.

Implications and action points: 1. Educational schemes should concentrate more on 10-12 years age group and prepare teaching strategies most suitable to them. 2. School environment and its curriculum needed to be made more attractive and work-based to reduce the dropout rate. 3. School education needed to be linked with earning and livelihood. Meticulously-developed and rigorously-implemented 'earn while you learn' schemes could attract out-of-school working children. 4. Any non-formal educational programme for these children must include need-based vocational elements and manipulative activities to enhance their employability. 5. Plan instruction in non-formal schools for two hours either in the morning or in the evening or both. In addition, another time block from 3 to 5 pm should also be kept open for those children for whom this time is convenient. 6. Since the study has brought out their specific interest in games and visuals, it will be useful to develop their teaching-learning process woven around such activities. 7. Provide these families economic stability and financial incentives. 8. Part-time teachers be employed from among the employers for need-based skill development. 9. Incentives in the form of cash or kind be given to parents for educating the girl child. 10. Educated boys and girls of these families be utilised in organising non-formal education centres. 11. Arrange adult literacy programmes for parents and also organise awareness programmes about various welfare schemes through audio-visual support for developing conductive attitude for taking advantage of the programmes. 12. Organise orientation programme of teachers of neighboring schools to impress upon them the need to educate these dwellers and needed encouragement by them instead of discriminating them on one pretext or the other. {NC/13}

GREWAL, A.; GREWAL, J.S. & JAGWANI, V. 1996. **Development and validation of needs assessment survey technique for the identification of training needs of primary school teachers in a DPEP district**. *M.P.: Regional Institute of Education (NCERT), Bhopal.*

Objectives: (i) To identify various types of expressed training needs (ETNs) of primary school teachers in the four areas *i.e.* teaching of language, mathematics, environmental studies, and pedagogical areas, (ii) to identify the assessed training need (ATNs) in mathematics and environmental studies, and (iii) to validate the Needs Assessment survey for the identification of training needs for future use by comparing ETNs and ATNs.

Scope and geographical coverage: Three districts in Madhya Pradesh.

Methodology: The sample of the study consisted of 116 primary school teachers (including 46 female teachers) drawn from the primary schools in the three districts. Teachers' responses obtained on the check lists were analysed by using the weighted score technique (WST). Analysis of achievement tests conducted on teachers in arithmetic and environmental studies was done by computing raw scores first and then converting these into percentages. The validation of NAIs was done by making comparisons of expressed and assessed training needs.

Major findings: (1) In language, the topics getting higher priority were: teaching children poor in reading, having faulty pronunciation, intonation and punctuation marks. (2) The higher range of WST on the mathematics inventory reflects that the teachers were not adequately prepared to teach the subject. (3) Highest expressed needs made by the teachers were in geography-related components of environmental studies. (4) Teachers had no understanding of the concept of EVS. (5) Teachers found it most difficult to make seating arrangements in multi-grade situation and then teaching the different classes simultaneously. (6) All the weighted percentage scores for the pedagogical needs of the sample primary school teachers were higher as compared to the needs in language, mathematics and environmental studies. (7) 80% of the teachers' preference was for content enrichment followed by methods of teaching (application level). (8) Primary school teachers required special content enrichment training courses so that they could come up to the level at which they were expected to operate. (9) Comparison of the expressed and assessed needs in arithmetic and environmental studies show congruence.

Implications and action points: 1. High priority should be given to content enrichment in school subjects followed by demonstration lessons. 2. Concept of integration of knowledge should be demonstrated by taking several examples. 3. Special training programmes should be devised to provide pedagogical skills like integrating value education, activities for creativity, competency-based instruction *etc.* 4. Teachers required training in development of local-specific teaching material. {NC/14}

MOHAPATRA, J.K. 1996. **Identification of intervention areas for improving teaching - step towards teacher empowerment.** *Orissa: Regional Institute of Education (NCERT), Bhubaneshwar.*

Objectives: (i) To develop a diagnostic tool for identifying the intervention areas for improving teaching efficiency of EVS II, (ii) to administer the tool on primary teachers and specify the intervention areas in the global common core format and subject-specific format.

Methodology: The sample consisted of 131 teachers drawn from 51 schools located in urban, rural and under-privileged sectors of the society. A tool with 103 items distributed over six sections, namely, personal profile, exposure to training, EVS II contents of classes III, IV & V and ability to set diagnostic questions was developed. The structure and diagnostic questions was developed. The structure and format of the tool was such that it could be easily used by DIET faculty after suitably translating it into regional language.

Major findings: (1) About 7% of the teachers had not undergone at least a CT course. (2) About 7% of the teachers were non-matriculates. (3) About 97% of the teachers did not have a science background (i.e. passed +2 in science stream). (4) About 64% of the teachers had not attended any orientation/ training programme within the last five years. (5) About 60% of the teachers did not know anything about MLL. (6) About 51% of the teachers had not undergone SOPT training with special reference to child-centered, activity-based, joyful teaching-learning structures. (7) The following concept domains were identified as hard spots for teachers: (a) class III: health and hygiene, characteristics of living beings in the context of animals and plants, difference between man-made and natural objects and difference between root and stem, (b) class IV: functions of root, stem and leaves, rotation of the moon, functions of heart, lungs and brain, season and weather, and (c) class V: occurrence of day and night in relation to rotation of celestial bodies, light propagation, uses of water, cloud formation, pollution of water, producers of food, machine and its uses, work, specific gravity and its calculation in simple cases, maintenance of balance between the percentage of oxygen and carbon-di-oxide in the atmosphere. (8) About 70% of the teachers did not know how to set a diagnostic test item. (9) About 70% of the teachers had not even seen a science kit box.

Implications and action points: 1. Global common-core format: The teachers needed to be suitably trained and oriented to overcome their crisis of confidence, illusion of non-ignorance, transactional deficiencies and lack of crucial competencies. This could be achieved by employing either of the following methods: (a) through a cascade system of training schedules (there will be transactional loss), (b) taking training to the teachers' door through tele-conferencing, (c) arranging cluster-level meeting and orientation as part of a regular routine, and (d) development suitable self-learning materials for use by DIET faculty in a localised training mode. 2. Contextual format: (a) since transaction loss in training in the content areas would have very serious repercussions for classroom effectiveness, either of the following needed to be arranged: (i) training at the cluster level, or (b) development and trying out of suitable concept-specific modules in an interactive format with lots of activities and diagrams to be made available to DIET faculty and, if possible, to teachers, and (c) a suitable user's manual should be developed in the framework of the available integrated science kit. {NC/15}

SRIVASTAVA, G.N.P. 1996. **Study of DPEP teachers training programme - M.P. and Maharashtra.** *M.P.: Regional Institute of Education (NCERT), Bhopal.*

Objectives: (i) To study the improvement in teaching skills as a result of training programmes, (ii) to study the problems in implementation, and (iii) to identify innovative practices, if any.

Scope and geographical coverage: Seven districts in MP and three districts in Maharashtra.

Methodology: The data were collect from the 10 districts. In all, 111 respondents including persons from the state resource group (SRG), district resource group (DRG), and block resource group (BRG), trainees, teachers, parents and village education committees (VEC) members were covered through questionnaires and personal interview. In addition, 60 schools and 220 students were also observed in classroom settings through a structured observation schedule.

Major findings: (1) The SCERT training programme emphasised child-centred and learning-centred teaching. (2) Story-telling, poetry, songs, plays, group games, toy making, creative activities, body-control exercises, manipulation of objects and pictures were used for teaching in lower classes. (3) *Dakshta sikshan* package stressed on MLL competencies and their evaluation. (4) Maharashtra had a three-tier training system, *viz* SCERT-SRG and DRG-BRG-teachers and headmasters. (5) Training programmes in Maharashtra concentrated on: (a) competency-based teaching, (b) joyful learning, (c) material development, (d) planning, (e) girls education, (f) puppetry, and (g) action research. (6) Training components in MP programmes included: (a) competency-based teaching, (b) school readiness programme, and (c) personality development through individual and group activities.

Implications and action points: 1. Intensive training alone could make teachers realise that teaching was a serious business. 2. Teaching required some essential skills which could be developed by training. 3. Proper training developed confidence in trainees to face students and solve their problems. 4. Adopting child-centre approach made teaching-learning process interesting. Training became lively by using role play, songs, dramatisation, audio-visual materials *etc*. 5. Comprehension of mathematical concepts became easy when taught using songs or poems, beads, block and other environmental resources. 6. Students enjoyed learning when they were actively involved in the learning process through joyful activities. 7. Provision of opportunities to children for both individual as well as group activities. 8. Joyful teaching-learning methods should be innovated. 9. Classrooms should be kept neat and clean. There should be a display of attractive but educative pictures, charts, student-made articles, models, *etc* tastefully within the school which would help in developing a learning ethos. {NC/16}

AGARWAL, V.P. 1996. **Comparative study of teacher training models under SOPT and DPEP programmes.** *Rajasthan: Regional Institute of Education (NCERT), Ajmer.*

Objectives: (i) To study the quality of INSET in relation to: (a) coverage of content, (b) transactional strategies, and (c) achievement on language teaching modules, (ii) to ascertain the extent of transmission loss from resource persons (RPs) level of training to the subsequent level of teacher's training.

Scope and geographical coverage: UP and Haryana States.

Methodology: Two groups of RPs training (N=112) and four groups of teachers' training programmes (N=171) under Special Orientation Programme for Primary School Teachers (SOPT) and DPEP in the two states were randomly selected. The tools of data collection were: observation schedule for coverage of content and transactional strategies and achievement test in language teaching.

Major findings: (1) A considerable amount of content was not transacted in the training programmes for RPs under SOPT (47%) and DPEP (40)% programmes. (2) Further loss was observed at teachers' level as more contents were left out in SOPT (57%) and DPEP (50%) programmes. (3) Transactions during training were mainly through lectures and discussions. Group work/activities were too less. Demonstration of activities were rarely done at both levels of training. (4) Training enabled significant gain in achievement of teachers on language teaching modules. (5) The initial loss (40%), transmission loss (18%) and total training loss (58%) under DPEP programme was less than the initial loss (47%), transmission loss (19%) and total training loss (62%) under SOPT programme. Transmission loss was seen from the RP level of training to the subsequent level of teachers' training. (6) DPEP training programmes, compared to SOPT programme provided better quality of training in terms of: (a) more coverage of content of the instructional package, (b) adoption of child-centred activities, (c) more gain in achievement in teaching of language, and (d) less loss of information.

Implications and action points: 1. Training programmes should be designed so as to incorporate subject-specific training needs of teachers. 2. A re-structuring of the training package was required, considering the duration and focus of training. 3. The mode of transactions should be changed from lecture to activity-based interactive mode. 4. Trainers (KRPs/RPs) from the concerned subject areas should be selected. 5. Monitoring and evaluation needed to be built into the training design for mid-course correction as well as for modification of subsequent training programmes. {NC/17}

KHADER, M.A. 1996. **Empowering primary teachers for effective classroom transactions in DPEP schools. Rajasthan:** *Regional Institute of Education (NCERT), Ajmer.*

Objectives: (i) To discern the patterns of classroom transactions in multi-grade and non-multi-grade schools under DPEP, and (ii) to generate a baseline data on classroom transactions for planning training inputs.

Scope and geographical coverage: Hissar (DPEP) District, Haryana.

Methodology: The unit of observation for the study was the school and using stratified random sampling 10 multi-grade and 10 non-multi-grade primary schools from rural and urban settings were drawn for obtaining field data. This was collected in two stages. At stage one, data on school and classroom transaction were obtained. The data on school consisting of physical facilities, instructional materials and teachers' professional qualification were collected using school information schedule. Following the observation technique, data on classroom transactions were collected. Two observers observed the classroom transactions in each school and the major variables were instructional planning, instructional strategy used, learner involvement, time on task (teacher as well as student), attention to individual learning, classroom management, effectiveness of classroom management, evaluation and feedback, innovative practices, and resistance to innovative practice. At stage one, emerging evidences from the analysis of stage one data in terms of the existing level of classroom transactions and the patterns of differences between multi-grades and non-multi-grade schools in rural and urban settings formed the source for developing indicators for collecting field data. Using focused group interview, field data from urban and rural groups of multi-grade and non-multi-grade categories were obtained. Teachers were the informants. Qualitative descriptions of school data were done to ascertain whether the schools had adequate physical facilities and instructional materials, as well as teachers with required professional qualifications. The data on classroom transactions were analysed first to determine the inter-rater reliability. The data on 20 schools over four groups were subjected to multi-variate analysis - MANOVA and Canonical Discrimination analysis - to discriminate or statistically distinguish the school group. The interview text was analysed and sorted into segments. Subsequently, segments were analysed and interpreted to identify the patterns. Further, the evidences from observation and interview data were triangulated essentially to check the objectivity as well as to provide meaningful explanations of the classroom transactions and derive policy implications for training.

Major findings: (1) Considered from the perspective of child-centered activity-based approaches, the prevailing level of classroom transaction was below average in multi-grade and non-multi-grade schools. In other words, classroom transaction is dominated by direct presentation and teacher talk.

(2) At the teacher's training level, conventional approach assumed centre-stage of the transaction mode, marginalising activity-based interactive mode of transactions. (3) Teachers practiced what was imparted at the training level, suggesting continuity between training and teaching. (4) Multi-grade and non-multi-grade school groups were well differentiated by the three factors/functions - classroom management, planning instructional activities and instruction for learner involvement - emerging from the variables related to child-centered activity-based approaches. (5) From strategic planning perspective, multi-grade and non-multi-grade schools needed training inputs to improve classroom management, planning instructional activities and instruction for learner involvement with foci on activity-based hands on experiences and practical skills. (6) There existed a dependency syndrome among teachers in the sense that they lacked perception of their professional role in finding solutions to the academic problems they confronted and sought prescriptive solutions from trainers or authorities.

Implications and action points: 1. Subject-specific training programmes with the foci on the following should be designed: (a) subject-specific trainers, (b) Workshop mode of transactions emphasising hands-on experiences and transfer of practical skills for classroom use, and (c) strengthen child-centered activity-based mode of transactions at the level of school. 2. Provision of training inputs to teachers based on hands-on experiences and practical skills for strengthening classroom management, planning instructional activities and instruction for learner involvement. Specific inputs consisting of: subject specific variety of activities & materials, lesson-based demonstration of activities/materials, transaction skills (activities/teaching aids), and strategies for: heterogeneous groups, multi-grade setting, grouping/cooperative, learning/reciprocal teaching. 3. Evaluation could be done by employing: observations techniques, preparation of test items, recording & grading, diagnosis of learning problems, and remedial strategies. {NC/18}

GUPTA, S.K. *ET AL.* 1996. **A study of the incidence and nature of learning disabilities at the end of class II and to evolve preventive strategies.** *M.P.: Regional Institute of Education (NCERT), Bhopal.*

Objectives: (i) To find out the incidence rate of children with learning disabilities in schools, (ii) to develop a tool to study the nature of learning disabilities in Hindi and arithmetic, and (iii) to evolve strategies to enhance the capability of classroom teachers in preventing learning disabilities to occur.

Scope and geographical coverage: Sehore block of Madhya Pradesh.

Methodology: The sample for the study included 20 learning disabled children each in Hindi and arithmetic. Two diagnostic tests were developed to study the nature of learning disabilities in the subjects respectively, along with their manual. The study included six components of language, namely phonologically processing, vocabulary, semantics, syntax, reading, and writing. The test on arithmetic consisted of three parts, namely oral and performance-based questions and also operation-related sums. The tests were administered to children individually. Data were analysed using descriptive and inferential statistics.

Major findings: (1) The incidence of learning disabled children of grade III was found 7% (4% boys and 3.4% girls) in case of government primary schools in the study block. (2) All children displayed deficiency in Hindi, particularly in written language, oral reading, and recognition of words and sentences. (3) Listening comprehension was found better than reading comprehension. (4) Factual listening comprehension was better than inferential listening comprehension. (5) Poor copying problem emerged as a major area of deficit. (6) Understanding and use of spoken language was found better than written language. (7) Potential dialect interference effect on various components of Hindi language was observed. (8) Poor attendance of sampled children and low educational and occupational status of parents was found. (9) In arithmetic, the sampled children showed deficiency in arithmetic operations, seriation, visual-spatial orientation *etc*. (10) None of the children irrespective of local and gender could reach the mastery level of 80%. Their achievement in terms of MLL was found to be 50/50 only.

Implications and action points: 1. Urgent steps needed to be taken by administrators and teachers to improve attendance of children, provide essential minimum facilities in school, develop awareness among head teachers/teachers about learning disabilities, and have frequent parent-teacher interaction. 2. Provision of enough opportunities to children to use spoken language in correct form. 3. More stress should be given on reading aloud by teachers and students using proper pronunciation, intonation and making listening more interesting through improved audio effects. 4. To improve comprehension of Hindi text, dilaectical interference should be reduced and finally eliminated. 5. To develop better comprehension of arithmetic operations, these should be related to practical day to day practices observed by the child. 6. Use rhymes, songs drawing and games to elaborate learning of alphabets and numbers. 7. Use objects available in the immediate environment like teacher's table, duster, blackboard, the moon, the sun *etc* to develop the concept of geometrical figures. 8. Sampled activities involving children would help in concept development. Play activities in group situations may be yet another useful strategy. (NC/19}

CHAKRAVARTI, K.K. *ET AL*. 1996. **Identification of minimum support facilities required for effective implementation of competency-based MLL-approach to teaching-learning at the primary stage in the DPEP district of Dhenkanal of Orissa**. *Orissa: Regional Institute of Education (NCERT), Bhubaneshwar.*

Objectives: (i) to assess the existing facilities available with the schools in the following areas: (a) academic, (b) institutional, and (c) infrastructural, (ii) to assess the achievement of the prescribed MLL competencies by the pupils, and (iii) to identify the facilities (keeping them to the minimum) needed by the schools in areas method in above: (a) for improvement of competency-based teaching-learning, and (b) to develop intervention strategies for providing identified minimum support facilities to primary schools.

Scope and geographical coverage: Dhenkanal District, Orissa.

Methodology: The sample of study consisted of all the DPEP project schools in the district, their teachers and randomly selected 133 class II & 134 class III students from these schools. The following tools were used in the study: (a) general information schedule to identify facilities available in the schools in relation to: teachers and their academic qualifications, students, infrastructure and teaching aids, (b) diagnostic tools for teachers to know about their modalities of classroom transactions and their attitude scale towards competency-based and MLL-approach to teaching-learning, (c) interview schedule for teachers to know about their needs in content and professional training or competency-based child-centred classroom teaching-learning through activities and demonstrations, and (d) competency-based achievement tests for students to measure their performance.

Major findings and implications: (1) Class I and class II should each be made a single-teacher class. Two qualified and motivated teachers be exclusively provided for classes I and II so that they can give undivided attention to the learning of children who have just joined the school for initiation into learning. This was significant in view of the fact that most of the schools were multi-grade and had multi-grade setup for classes I and II. (2) Training may be given to the teachers to: (a) make them highly motivated professionals who can instill the acquisition of skill processes to child learners on desired competencies, (b) prepare activities or demonstrations on lessons and make them proficient in the use of science, mathematics and tool kit appropriate to lessons. (c) handle multi-grade situations. (3) The schools may be provided with physical and infrastructural facilities. (4) The primary school teaches needed to be trained. Such training should be of short duration, recurring in nature, and be provided at the doorsteps of the teachers. (5) A good environment for work was a necessity. So also was is essential amenities for sustaining the ongoing work. In this context upgradation of physical facilitates of the schools and supplies of necessary stationeries are suggested. (6) MLL - achievement by each child in the schools can be viewed, when considered on the total primary student population, as an overall qualitative improvement in primary education. The proposed empowerment of the teachers and the provision of facilitates to the primary schools were meant to improve the strategy for classroom teaching-learning transactions. {NC/20}

PACHAURY, A.C. 1996. **Developing and field testing of readiness programme for students of class I incorporating basic cognitive abilities (conservation, serration and classification).** *M.P.: Regional Institute of Education (NCERT), Bhopal.*

Objectives: The main objective of the study was to develop a readiness programme for class I students.

Scope and geographical coverage: Sanchi block of M.P.

Methodology: Data were collected from 31 school entrants from three government primary schools of the block. The children were randomly selected and individually interviewed. Tasks administered to each child included: (a) counting (4 stones). (b) 1:1 correspondence (7 stones), (c) conservation of number, (d) classification tasks (2×2 matrices), and (e) a seriation task.

Major findings: (1) Neither boys (45%) nor the girls (30%) showed 80% level of performance on the counting of seven stones. The girls (53%) did not show this level of performance even for the counting of four stones on the post test. However, boys showed 90% achievement on the counting of four stones. (2) Sampled boys showed 81% level of performance on the one-to-one correspondence task but girls' (38%) performance lagged behind. (3) The school readiness programme run by teachers did not build the mental schemes of conservation, classification and seriation. (4) On the visual-symbolic association task, the performance of boys was only 81% but girls' performance remained at 46% only.

Implications and action points: 1. The teacher should get occasion for the child's active development of knowledge. 2. Research evidence suggested that a child who could negotiate number conservation, classification and seriation was a better reader and performed better in arithmetic achievement as well. 3. A learner constructs his/her own knowledge as a result of active interaction with the environment. So enough opportunities to children should be given for actively interacting with the natural, biological, social or psychological reality in the teaching-learning process. {NC/21}

PRAMASH, S. *ET AL.* 1996. **Identification of local specific teaching learning materials for grades I, II and III in language, mathematics and environmental studies to nurture perceptual abilities including observation, measurement and drawing inferences.** *M.P.: Regional Institute of Education (NCERT), Bhopal.*

Objectives: (i) To identify local-specific materials pertaining to language, EVS, mathematics and school activities which were available and being used at the primary level, and (ii) to suggest the use of suitable materials in the teaching of various topics contained in the primary syllabi.

Scope and geographical coverage: Raisen District in Madhya Pradesh and Osmanabad District in Maharashtra.

Methodology: A large number of schools were selected for the study. Observation proforma, some poem for motivating the children and tests on language, EVS and mathematics were developed and used to collect data. Interaction with teachers, parents and guardians were also made to know their views about the school education programme. The materials collected from various schools were finalised through a meeting.

Major findings: The study has identified various local-specific materials in the two sampled districts.

Action Points: 1. The local-specific materials should be used to create interest and awareness amongst children and teachers. 2. With help of children, teachers should take initiative to identify local-specific materials to make teaching-learning process effective. {NC/22}

RATH, K.B. *ET AL.* 1996. **Effect of schooling process on learning outcome.** *Rajasthan: Regional Institute of Education (NCERT), Ajmer.*

Objectives: (i) To identify the effect of schooling process variables on learning outcome at primary stage, and (ii) to determine those schooling process variables which promote equity in the school.

Scope and geographical coverage: Hisar District, Haryana.

Methodology: The sample of the study comprised 100 schools, 96 head teachers, 408 teachers and 1882 students of grade V. Stratified proportionate random sampling procedure was used to select the schools and from each school, 20 students were selected randomly. The tools used for data collection were the following: schedule for pupils, schools & head teacher, Raven's coloured progressive matrices, achievement test in language & mathematics, intellectual achievement responsibility questionnaire, self-esteem inventory and metacognition questionnaire. Design: Cross-sectional survey has been conducted for the present study. Hierarchical structure - pupil nested within the school - was treated as two sections. From both the section, data were collected at a particular time. Variables constructed: Achievement in mathematics and language, self-esteem and attribution process were treated as outcome variables. In total, 28 variables related to pupil's background, ability and motivational characteristics were constructed. From school side, 55 process variables pertaining to physical and material facilities, school composition, patterns and rules of operation and interaction, and teacher attitude were formulated through appropriate technique. Variables from both the pupil and school level were treated through HLM analysis.

Major findings: (1) Descriptive analysis of sample characteristics: (a) parental educational status was generally lower, but more prominent in case of disadvantaged students, (b) more number of SC students were detained in primary grade followed by students from backward classes, (c) few students found an opportunity to attend pre-school before formally joining primary school, (d) maximum teachers had academic qualifications up to XII class and had obtained a diploma in primary education, (e) both male and female teachers had studied mathematics and language only up till class X, (f) there were more separate schools for girls in rural areas whereas more number of co-educational schools were established in urban areas, (g) not a single government school was attached with a pre-school, and (h) schools having less than three teachers were prevalent in rural areas. (2) Outcomes: (a) performance in language was inferior than in mathematics in Hisar District, and (b) low self-esteem of students was apparent in comparison to their attribution process in the district. (3) HLM results: (a) Extent of variation: there were 29 and 20 percentage of variance across the school of mathematics and language respectively. For self-esteem and attribution process, it was 12 and 10% respectively, (b) Pupil level determinants: (i) within the school girl's performance in mathematics and language, it was not different than boys. However, it was not consistent across the schools in mathematics, (ii) students of BC category were performing lower in mathematics and language than general students within the school but varied significantly across the schools in mathematics only, (iii) SC students' performance was less than general students in mathematics within the school. They had lower self-esteem than general students within the school but not consistently across the schools, and (iv) metacognitive awareness of students appeared as a significant determinant of mathematics & language achievement and their self-esteem within the school. Family environment and general ability of students were also found as significant predictor of studied outcomes at pupil level, (c) Contextual effect: family environment of students was found to have substantial effect on mathematics and language achievement at school level as a contextual variable, (d) Effective schools: (i) schools of Hansi I, Sibani and Nornound blocks were more effective than Hissar I and Tohana in mathematics, (ii) in language achievement, schools of Sibani and Barwala blocks had less effective schools than Narnound, Fathehabad and Ratia, (iii) on an average, schools with better mathematics achievement had better language achievement, as well, and (iv) at the school level, attribution process was strongly related to mathematics achievement whereas self-esteem was with language achievement, (e) Effective schooling process indicators: (i) pupil perception about their teachers, head-teacher's co-operation to teacher on management of academic matters, pupils' inclination towards teachers had discernible effect on mathematics achievement of students, whereas mathematics qualifications of teachers had negative impact on the same outcome, (ii) percentage of female teachers, pupil inclination towards teacher, instructional approach in classroom (asking question and paying individual attention), head teacher's concern for student matter significantly influenced the language achievement, (iii) class size, students preference to work in group, sequential presentation of lesson with comprehensible language and instructional approach in classroom improved the self-esteem of students substantially. Whereas closeness among teachers negatively influenced the self-esteem, and (iv) head teacher's co-operation with teacher in the management of academic matters and group feeling among students contributed positively towards the attribution process of students, and (f) Schooling process promoting equity: (i) days of in-service training, number of teachers in school and adequacy of mathematics curriculum significantly reduced the achievement gap between girls and boys in mathematics. However, negative feeling among teachers increased the achievement gap, and (ii) teacher qualification and preference to work in a group minimised the mathematics achievement gap between BC and General students.

Implications and action points: 1. Language learning needed immediate attention; 2. For equity purpose, girls, SC and BC students needed intensive intervention in subject-specific activities. 3. Improvement of classroom process activities should be prioritized. 4. Simultaneous emphasis should be given to strengthening achievement as well as affective characteristics of students. 5. Intervention should be school-based and school-focused. 6. Specific attention should be given to the language learning of students, in particular and to mathematics in general. In all the blocks, some of the schools were ineffective in both the subjects. 7. During teaching, development of affective characteristics of students should be stimulated. 8. In school situation, a teacher should function in such a way that, it will nurture favorable students' perception about him/her. 9. Head teachers should provide adequate cooperation to teachers in academic matters. 10. Administrators should consider the contextual condition of school for planning purposes. 11. There was a need for the attachment of pre-school facility with primary schools. 12. In-service and pre-service training component fro teacher-educators should emphasise the strategies (for example, active learning techniques) to improve schooling process. {NC/23}

RAMAA, S.; ASHOK, D.A. & BALACHANDRA, H.M. 1997. **Study of physical health, learning and behavioural problems among primary school children in Mandya district.** *Karnataka: Regional Institute of Education (NCERT), Mysore.*

Objectives: (i) To prepare a comprehensive inventory and behaviour schedules in order to identify children with chronic physical health problems, learning problems, emotional and behaviour problems, (ii) to identify children who exhibit poor academic achievement in primary schools, and (iii) to determine the percentage of children who exhibit poor academic achievement, chronic physical health problems, emotional and behaviour problems, learning disabilities, below average intelligence and sensory problems.

Scope and geographical coverage: Mandya and Srirangapatna taluks in Mandya (DPEP) District, Andhra Pradesh.

Methodology: The study was carried out in 20 primary schools selected from the two *taluks* of which the former is an urban and the latter a rural *taluka*. A list of children studying in classes II-IV with different types of problems was prepared with the help of the class teachers, observation and informal testing. Grade I children were excluded. The final sample consisted of 458 children including 154 from Mandya *taluk*. The following tools and techniques were employed for identifying different problems: (a) reading problems: Kannada word recognition test (Ramaa, 1985) and Kannada oral reading test, (Jaya Bai, 1958), (b) writing problems: Kannada word recognition test, (Ramaa, 1985), (c) arithmetic problems: arithmetic diagnostic test for primary school children, (Ramaa, 1993), (d) intellectual retardation: Raven's coloured progressive matrices (Raven, 1976), (e) physical health problems: Physical health problems inventory: medical examination by pediatricians (constructed for the study) and (f) emotional and behavioural problems: schedule for assessment of behavioural problems: examination by psychiatrists (constructed for the study).

Major findings: (1) The percentage of children with overall scholastic backwardness was considerably high in both the *taluks* - 5.8% in Mandya (urban) and 7.7% in Srirangapatna (rural). (2) As far as speed and accuracy of reading performance was concerned, a majority of the poor readers (5.7- 9.6%) exhibited severe levels of retardation in both *taluks*. The percentage of children who were severely retarded in reading increased along with the grades. (3) The number of children who were poor in writing was slightly lesser than number of children who were poor in reading. (4) The number of children who were considered as poor in arithmetic by classroom teachers was less in comparison to reading and writing performance. (5) The performance on Raven's coloured progressive matrices revealed that 5.5% of the children in Mandya *taluk* were intellectually defective (below 5th percentile in the test). (6) About 2 to 4% of the children experienced different kinds of chronic physical health problems excluding dental caries. Around 15-17% had dental caries. (7) The percentage of children who exhibit different types of emotional and behavioural problems (EBP) ranged from 0.6 to 2.8%. There are more number of children, with EBP in Srirangapatna *taluk* compared to the other *taluk*. As a rule, the percentage of children with EBP increased along with the grades II-IV in both the *taluks*. (8) Conduct disorders were noticed in more number of cases than other types of behaviour-related problems. The teachers of these children reported that they had become problematic at home, school and even in the community. (9) Learning disabilities were noticed only in 1-1.7% of the cases. Studies done earlier by Indians had showed a little higher figures - 3% of reading disabilities (Ramaa, 1993), 6% of arithmetic disabilities (Ramaa 1993; Gowramma, 1996), 6% of arithmetic disabilities (Ramaa 1993; Gowramma, 1996) and 7% of language disabilities (Rrimani, 1996). (10) Less than 1% of the children had more than one type of problem in different combinations. This indicated that single disabilities were more prevalent than multiple disabilities.

Implications and action points: 1. There was a need to follow a case study method aiming at understanding the child's problem in totality. 2. There was a need to improve school climate and quality of children. If home background was not congenial, parental guidance and counselling had to be provided. 3. Teachers should be trained to develop achievement and diagnostic tests, diagnose the difficulties of children and provide remedial instructions to them. 4. Competency-based teacher training programmes were essential in order to enable teachers to meet the special needs of children. 5. Child guidance clinics and resource rooms needed to be established in each *taluk* headquarters. 7. Schools should take up leadership in providing health education to parents by involving a team of doctors. (8) Provision should be made for dispensing certain basic medicines for needy children. Provision for some medical allowance should also to be made for children with chronic health problems and are from poor families. (9) Department of Education should take initiative in the effective implementation of the recently-launched school health check-up week by Indian Academy of Pediatrics, and Central government. (10) The school can make provision for a practical programme like 'The little doctor's programme'. In this, a qualified doctor would impart health knowledge to selected school children who would in turn use this knowledge to spread health awareness among their friends. (11) It was essential that mentally-retarded and children with multiple disabilities should be placed in special class/schools or vocational training centres. (12) Like school health programmes, school mental health programme should also be made compulsory which should be carried out in a scientific way. (13) Extensive surveys should be conducted in all the districts to identify problems among children. Suitable tools have to be developed to identify problems of children in all languages. {NC/24}

SINGH, N. & BALA, S. 1996. **Study of role of perception of VEC members of DPEP district in Haryana.** *Rajasthan: Regional Institute of Education (NCERT), Ajmer.*

Objectives: (i) To identify the role of VEC members for community participation in generating awareness and environment building for promoting UEE in DPEP districts in Haryana, (ii) to ascertain the role perception of VEC members in the study area, and (iii) to identify the nature of contribution of VEC members in community participation in various activities in schools.

Scope and geographical coverage: Hisar District, Haryana.

Methodology: The ex-post facto research design and stratified purposive method used in the study. The sample was drawn from two blocks randomly selected from the district, of which eight clusters were randomly selected. Sixteen VECs of these clusters *i.e.* two VECs from each cluster were selected. In all, 192 VEC members belonging to 10 different categories constituted the sample of the study. Role perception inventory (RPI) consisting of 54 statements based on expected roles of VEC and interview schedule consisting of 27 main questions followed by sub-questions related to retention and achievement were used for data collection. Frequency count, percentage and chi-square were computed for analysis of data.

Major findings: (1) *Constitutional structure*: Difference was found in proposed and actual number of VEC members. (2) *Findings pertaining to role perception*: (a) *Category wise*: A significant difference was found in the expected and perceived role of VEC by the members of all 10 categories. Members from, *mahila mandal* and health workers perceived these roles to be performed by *gram panchayat* followed by VEC. The perception of expected roles of VEC was found to be less than 45% in general, and (b) *Dimension-wise*: (i) social function of VEC towards villagers in general: Roles of VEC related to this dimension were perceived more than 50% & above by members belonging to six categories i.e. by *gram panchayat* (SC), head teacher, female teacher, PTA, social worker and gram *sachiv/ sevika* and less than 50% by the members belonging to the categories of *gram panchayat* (G), *mahila mandal*, health worker and *anganwadi* worker, (ii) mobility community participation for UPE: The role of VEC related to this dimension were perceived by more than 50% & above by the members belonging to two categories, namely social worker and gram *sachiv/sevika* and less than 50% by the members belonging to other eight categories, (iii) providing facilities to school/NFE centres: Roles related to this dimension were not perceived as roles of VEC, by members of all categories. Roles related to this dimension were perceived by more than 50% & above to be performed by *gram panchayat*, (iv) participation in programmes/activities organised by the school/NFE centres: Role related to this dimension were perceived to be less than 50% in case of members belonging to all categories, and (v) day-to-day tasks of VEC: The expected roles of VEC related to this dimension were found to be perceived less than 40% by the members belonging to all categories. (3) Education level: Members having qualification ranging from classes VI-VIII had greater perception about the expected roles of VEC. It was lowest in the case of post-graduates. (4) Occupation: Members owning agricultural land had greater perception about expected roles of VEC than members belonging to other occupational groups like agricultural labour, government servant, businessman *etc*. (5) Family size: Members belonging to joint family had greater perception about expected roles of VEC than members belonging to nuclear family. However, this difference was not significant. (6) Age: A greater perception was found to be in case of members below 30 years of age and lowest in case of 51 years & above. It was interesting to note that with the increase in age, the perception about expected roles of VEC shifted from VEC to school. (7) Type of school in which wards were studying: The members whose wards were studying in governments schools had greater perception about expected roles of VEC than whose wards were studying in other type of schools like private, missionaries *etc*. (8) Village-wise: VEC members of Daulatpur and Salamkhera village perceived the expected roles of VEC more than 50% & above. In case of other 14 villages it was found to be less than 40% or between 40-50%. (9) Block-wise: VEC members of Fathehabad block had greater perception about expected roles of VEC than members of Hissar II block. (10) Item-wise: The item-wise analysis revealed that in general, all the nine expected roles under the dimension of social functions of VEC towards villagers in general were perceived as role of VEC than other agencies by the members belonging to all categories. The perception was found to be 50% and above in case of only three roles *i.e.* (a) overcoming social and family obstacles in vogue towards girls education in the village, (ii) identifying problems/causes of community causing hindrance in primary education and overcoming them, (iii) from strategy of eradicating superstitions and disinterest towards education in the village. (11) It was found less than 50% in case of other roles of VEC, *i.e.* eradicate prevailing feeling of observing difference between boys and girls in the village, generating feeling of equality towards SC/ST among villagers, organising meeting for educational development of the village, identifying causes of such boys and girls who never attended school, publicising and organising supportive programmes for women empowerment & girls education and developing public consciousness for girls education. (12) In case of 14 enlisted roles of VEC in mobilising community participation for UEE, it was found 50% and above in case of only three roles: (a) motivating villagers to send all the children of 6-11 years age group to school, (ii) keeping continuous contact with community for achieving the target of UEE, and (iii) contacting parents of dropouts to regularise them. (13) The perception was found to be less than 50% in case of the expected roles of VEC such as - informing villagers about facilities being offered under DPEP, motivating villagers to cooperate in the activities of the programme, contact the parents of non-school going boys and girls for their enrolment *etc*. (14) Roles like acquainting villagers with functions of VEC developed a sense of belongingness among villagers towards school. Providing opportunities to villagers for participation in school programmes/activities were perceived more to be performances by school than VEC. And roles like organising community meetings to publicise the expansion of primary education and informing parents regarding NFE/*balwari*/*anganwari* centres were perceived as the roles of *gram panchayat* than VEC. (15) Perception regarding 13 enlisted roles of VEC with regard to providing facilities in schools/NFE centres, it was found 50% & above to be performed by *gram panchayat* than VEC. The roles perceived to be of the former are: arranging for the construction of new school buildings, provision of drinking water facilities *etc*. (16) It was also found that the roles - providing materials useful in teaching and all other activities in school, seeking the cooperation of administration in the appointment of teachers in schools where there was such shortage *etc* were perceived more to be performed by the BEO than VEC. (17) In case of five items related to the role of VEC with regard to participation in programmes/activities being organised by school/NFE centres the perception was found to be 50% and above in case of only one role of VEC *i.e.* establishing close relationship between parents and teachers. Whereas it was found to be less than 50% in case of other four roles *i.e.* seeking community participation for making school the centre of community activities, retaining boys and girls in schools by distributing mid-day meal, locating non-school going children to bring them back to school and seek community participation to organise meetings, festivals, functions and other programmes in the school. With regard to the perception about the day-to-day tasks of VEC it was found to be 50% and above only in case of one role *i.e.* assisting head teacher and teachers in preparing plan for school activities. (18) It was less than 50% in case of other expected roles *i.e.* evaluation and review of the academic achievement of boys and girls time and again, evaluate and review the achievement of NFE/*balwari*/*anganwari* centres *etc*.

Implications and action points: 1. There was a need to develop guidelines/materials for members on the basis of their perceived roles. 2. Training programmes for VECs as well as for members of VECs needed to be designed. This programme should be designed on the basis of identified roles. 3. Input at all levels *i.e.* academic, administrative and financial aspect, should be provided to VECs so that VECs could work effectively for promoting UEE. 4. Evaluation performance for the assessment of the work of VEC should be developed on the basis of their perceived roles. {NC/25}

PRAKASH, VED; GAUTAM, S.K.S.; BANSAL, I.K. & Bhalla, M. 1998. **Mid-term assessment survey: An appraisal of student's achievement.** *New Delhi: DPEP Core Research Group, NCERT.*

Objectives: This study aimed at measuring the average performance of students' achievement on the newly developed competency-based achievement tests in language and mathematics at the end of class I and at the end of the penultimate class of primary school. Besides, the study also made an attempt to make a comparative analysis of students' achievement on the BAS tests administered during the initial survey in the year 1994 with that of students' achievement on the same set of tests re-administered to the students of five schools that were randomly selected from the sample of MAS 97. The study also attempted to compare the differences in students' achievement on the MAS tests in regard to gender and social groups.

Scope and geographical coverage: Seven DPEP Phase I states.

Methodology: The NCERT in the capacity of the nodal agency developed the design, instruments, framework of data analyses and other complementary materials for administration during the survey. The present study makes an effort to providing an overview of the findings gathered from the data of seven DPEP Phase I states. The MAS data covered 66831 students, 6221 teachers and 2068 schools spread over 42 districts across seven DPEP Phase I states.

Major findings: (1) Analysis of results reveal that the performance of students in class I on MAS tests both in language and mathematics had been better than the performance of students in classes III and IV, (2) The DPEP goal of reducing the differences in achievement between boys and girls in class I has been accomplished in 40 out of 42 districts in language and in 31 out of 42 districts in mathematics across seven states. Gender-wise differences in achievement in class III signify that the DPEP goal of reducing the achievement gaps has been overcome in 14 out of 15 districts in language and in all the 15 districts in mathematics across four states. Differences in achievement between gender in language in class IV have been reduced in 24 out of 27 districts and in mathematics in 25 out of 27 districts of the states of Haryana, Tamil Nadu and Madhya Pradesh. (3) The DPEP goal of reducing the achievement differences between urban and rural students in class I has been realised in 20 out of 42 districts in language and in 16 out of 42 districts in mathematics across seven states. In class III, the differences in achievement between urban and rural students have been reduced to less than five percent limit of the DPEP in 4 out of 15 districts in languages and in 5 out of 15 districts in mathematics across four states. The goal of the DPEP of reducing the area-wise differences in achievement has been attained in 22 out of 27 districts in language and in 18 out of 27 districts in mathematics in class IV. (4) The DPEP goal of reducing the achievement differences between SC and other and between ST and others in class I in language has been reached in 21 out of 42 districts in seven states and in 17 out of 31 districts in four states respectively. In class I, in mathematics, the goal has been realised in 22 out of 42 districts in seven states between SC and others and in 15 out of 31 districts in four states between ST and others. The DPEP goal of reducing differences among social groups in class III in language has been realised in 13 out of 15 districts between SC and others and in 9 out of 15 districts between ST and others in four states. In class III mathematics, it has been achieved in 13 out of 15 districts between SC and others and in 11 out of 15 districts between ST and others in four states. In class IV, in language, the DPEP goal of reducing differences in achievement among social groups has been overcome in 23 out of 27 districts between SC and others and in 14 out of 27 districts between ST and others. In class IV in mathematics, the goal has been reached in 19 out of 27 districts between SC and others and in 11 out of 27 districts between ST and others. {NC/26}

VENITA KAUL *ET AL.* 1997. **Textbooks with a difference: A study of two DPEP experiments.** *New Delhi: Department of Pre-school & Elementary Education, NCERT.*

Objectives: (i) To study the process adopted by the respective states for development of the textbooks and teacher's handbooks, (ii) to study the procedure adopted for trialling of the material and for utilization of the feedback received, (iii) to study the curriculum and material developed and its usability and efficacy in the classroom, and (iv) to make recommendations, based on this experience, for the larger system.

Scope and geographical coverage: Madhya Pradesh (MP) and Kerala.

Methodology: A triangulated research design was adopted for the study. Keeping in view the specified objectives, the study included the following components: *Focussed group and individual interaction* with: (a) personnel involved in the process of development of curriculum and textbooks, and (b) users of material *i.e.* children and teachers, study of relevant documents, *desk analysis* of the concerned textbooks and teacher's handbooks by a team of linguists, subject experts and teachers, and *classroom* post-test method. Research and Development cycle was followed for item selection and one group experimental design was applied for item validation. The following statistical calculations were made: consistency index, critical ratio for practical review, Burk's practical method, content validity, critical ratio for mean difference for criterion validity, graph principle for construct validity, reliability, consistency index and Kappa index for classification reliability and discrimination index.

Major findings: (1) Items of the behavioural area corresponded with the objectives. (2) Discrimination indices related to the five behavioural areas clearly discriminated the items. (3) The constructed CRT had high reliability. (4) The content validity of the test was also high. (5) The construct validity was satisfactory. (6) Criterion validity of behavioural area was high.

Implications and action points: 1. The CR test may be useful to determine the students' achievement level in mathematics of class IV. 2. Such CRT has a distinct advantage over the usual norm referenced test (NRT). {GJ/06}

MEHTA, RAJESH S. & KURKUR, KANUBHAI K. (Guide). 1999. **A study of the results of classes V, VI and VII science subject examination of trainees of Adhyapan Mandir with and without books.** *Gujarat: GCERT.*

Objectives: (i) To test trainees' knowledge in science of class V, VI and VII, and (ii) to assess the difference between the results of with and without book examination.

Scope and geographical coverage: DIET Amraeli.

Methodology: All the 39 trainees of second year constituted the sample. Two self-made multiple choice type tests were prepared. Both the tests consisted of 50 fill in the blanks type items. The three hour test was for 50 marks. The trainees were divided into group A and B, each containing 20 and 19 persons respectively. Both the groups were given test number one in which group A was to answer without books and the second group to answer with the help of books. The second test was given by interchanging the groups. The data was analysed by calculating the mean, standard deviation and CR.

Major findings: (1) No difference was found in the results of examination with books in the case of both the groups. (2) A slight difference was found in the results of examination without books in the case of group A and B. The latter group was found to be slightly weak. (3) Both the groups scored better in the examination with books than without books. (4) Both groups had taken more time in the examination with books compared to the examination without books.

Implications and action points: 1. Local as well public examinations with books should be conducted to minimize unfair means but more time should be given in such examination and the nature of questions should be changed. {GJ/07}

MULWANI, R.C. & JOSHI, T.S. (Guide). 1999. **A comparative study of students' academic achievement of class III of south Gujarat.** *Gujarat: GCERT.*

Objectives: (i) To ascertain the achievement level of students of class III, (ii) to compare the achievement level of students subject-wise (Mathemtics, Gujarati and EVS) as well as district wise.

Scope and geographical coverage: Surat, Valsad, Dangs and Bharuch districts in south Gujarat.

Methodology: 800 class III students from 20 primary schools in each district were randomly selected which formed a total sample of 3,200 students. Competency-based question papers in the three subjects prepared by GCERT, Gandhinagar formed the tools of the study. Mean and standard deviation of achievement scores were calculated subject-wise as well as district-wise. CR was calculated to test null hypothesis in each case.

Major findings: (1) The average achievement of south Gujarat students was 62.18%. The mean achievement of students in Surat District at 71.6% was the highest. It was followed by 61.5% in Bharuch, 61.1% in Dangs and 54.5% in Valsad. (2) Students differed in their mean achievement among the four districts but the students of Bharuch and Dangs did not differ in their mean achievement levels. (3) The subject-wise achievement level of students in Surat District was the highest while that of Valsad District was the lowest. (4) The subject-wise achievement level of students of Bharuch and Dangs was at par. (5) The study reveals that the achievement level of South Gujarat students was highest in Mathematics and lowest in Gujarati.

Implications and action points: 1. A common drive is necessary to upgrade the achievement level of South Gujarat students from the present level to 75% and above. (2) An intensive training programme for Gujarati language should be launched for the teachers to improve the teaching of Gujarati substantially. {GJ/08}

PATEL, A.V. 1999. **Construction and validation of an achievement test in Gujarati for class IV students**. *Gujarat: GCERT.*

Objectives: (i) To construct an achievement test in Gujarati, and (ii) to determine the validity of the constructed test.

Scope and geographical coverage: Panchmahals District.

Methodology: The study was conducted in three talukas of the district. The sample comprised of 200 students (111 students from rural areas including 52 girls and 89 students from urban areas including 40 girls) randomly selected out of 10 schools. This sample was used for item analysis and selection. Later, three more talukas were selected. 250 students from 15 schools (105 students from urban areas including 49 girls and 145 students from rural areas including 71 girls) were randomly selected for testing. After item analysis, 50 items were included in the final test which included objective type items and short answer type items. The test was constructed under the guidance of State Research Advisory Committee, GCERT. Data analysis was made by preparing item × person matrix and by using Rathod Computer Software NRT 99.

Major findings: (1) Highest, average and lowest facility values of items were 0.84, 0.54 and 0.30 respectively. (2) Highest, average and lowest discrimination indices of items were 0.62, 0.42 and 0.20 respectively. (3) Reliability coefficient Cronbach alpha of the test was 0.93 and that as per Spearman's formula was 0.95.

Implications and action points: 1. The test can be used to measure the achievement level of class IV students in Gujarati. 2. It can also be used to know the student's comptency-wise achievement and shortcomings. 3. This test may guide concerned authorities to upgrade the achievement levels of students. {GJ/09}

PATEL, BHARTI B. & PANCHOLI, J.H. (Guide). 1999. **The role of Balmitravarga in learning achievement of children.** *Gujarat: GCERT.*

observation in schools using the material. Assessment of children's learning was not undertaken since the developed material had been in use in the schools for only six months which was not considered adequate for carrying out a meaningful impact evaluation.

Major findings: (1) The MP experiment was possibly the first of its kind, in terms of working on curriculum renewal in a collaborative mode. It brought together many agencies in the course of this exercise. Any further efforts in this direction need to be encouraged but at the same time, the gaps identified in this report need to be addressed to ensure full benefit from this approach. (2) Experiments by DPEP Kerala, have for the first time demonstrated possibilities of looking at the entire process of curriculum development and development of textbooks and handbooks in a very participatory and contextually relevant manner. The textbooks that have emerged from this exercise can very well be considered pace-setters in the realm of child-friendly textbooks since they are books that will undoubtedly attract children towards learning and schooling, books that little children will love to possess. It is for other agencies/states now to take advantage of their experience, learn from their experience, learn from their mistakes and move on to still greater heights in their attempts at providing meaningful education to children in primary schools. {NC/27}

NIEPA

AGGARWAL, YASH. 1998. **Access and retention under DPEP, a trend analysis (1995-96 to 1997-98).** *New Delhi: National Institute of Educational Planning and Administration.*

Objectives: The study examines various dimensions of access and retention in the DPEP phase I districts. It specifically focuses on: (i) Growth of enrolment through format/alternative modes of education by grades, gender and for the SC and ST population groups, (ii) trends in important indicators of equity and internal efficiency of the school system, and (iii) implication of the recent trends for policy, planning and monitoring of primary education in general and that of DPEP in particular.

Scope and geographical coverage: Phase I DPEP districts.

Methodology: The study based on the data obtained through DISE (EMIS), which has been implemented in all DPEP I states since 1995. In addition, data from Census and other sources was also used depending upon their availability.

Major findings: (1) Primary school infrastructure: Student classroom ratio (SCR): (a) There are large inter-state and inter-district variations in SCR, (b) still there are many schools where only one classroom is available for instructional purposes. When SCR is higher than 50, it shows the scarcity of classroom space for instructional purposes. The problem of the availability of instructional rooms seems to be more serious in Assam, (c) In Kerala, the average SCR was 31 in 1997. This is a relatively low value for the densely populated settlements having large schools, (d) A review of the civil works programme under DPEP indicates that repairs and maintenance of classrooms need to be given more attention. (2) Enrolment Trends: (a) Aggregate analysis for all 42 Phase I districts indicates that the net enrolment increase was 9.43 percent between 1995-96 and 1996-97 and 6.48 percent between 1996-97 and 1997-98. Nearly two-third increase between 1996-97 and 1997-98 is attributed to the success of Alternative Schools (AS) and an innovative Education Guarantee Scheme (EGS) launched in Madhya Pradesh. (3) Trends in class I enrolment: (a) The recent data shows a significant decline in class I enrolment in some districts. There were 10 districts where more than 5 percent decline in class I enrolment was observed between 1996-97 and 1997-98, (b) The share of girls in total enrolment in 42 DPEP districts increased form 45.5 percent in 1995-96 to 46.3 percent in 1997-98, (c) The position with respect to girls' enrolment in various grades has improved in practically all districts. For 21 out of a total of 42 districts, conditions of nearly perfect gender equity have been attained. (4) SC and ST Enrolment Trends: The data of the last three years shows considerable improvement in coverage and participation of SC and ST children in primary education. (5) Internal Efficiency: (a) Overall, there has been a marginal decline in the repetition rate from 8.39 percent in 1995-96 to 8.29 percent in 1996-97. Assam continues to have the highest repetition rates even in class I. This is largely due to admission of underage children who cannot be promoted to grade II, (b) This shows a significant amount of lateral entry at grades other than grade I. (6) Gross enrollment ratio: (a) the average GER in the DPEP-I states varies from 75 percent in Haryana to 110 percent for Maharashtra. The average GER for all the DPEP districts was 83.9 percent in 1995-96, which increased to 91.6 percent in 1996-97. Because of the increased emphasis on AS strategies, the GER for 1997-98 was 92 percent for the formal schools and 94.2 percent for enrolment including AS/EGS enrolment, (b) The above analysis of GER shows that while there have been improvements in enrolment and coverage over the years, there are large number of children who may still be out of school. (7) General observations: (a) Analysis of the data for the period 1995-96 to '97-98 suggests consistent improvement in enrolment and retention including that of girls, SC and ST children and a steady progress towards achievement of DPEP goals in 42 districts covered under DPEP I, and (b) At the end, a few suggestion were made on the basis of the study for improving access, enrolment rate & retention is school. {NP/01}

AGGARWAL, YASH. 1998. **Access and retention: The impact of DPEP, national overview.** *New Delhi: National Institute of Educational Planning and Administration.*

Objectives: (i) To compare enrollment trends between DPEP and non-DPEP districts, (ii) to examine the profile of DPEP I districts in terms of: (a) growth of enrollment by grades, gender, SC & ST, (b) repeaters rate for each class and by gender, and (c) gender and caste-based differentials in enrollment rates (GER & NER), and (iii) to examine the implications of recent trends in performance indicators for policy, planning and monitoring of primary education in general and that of DPEP in particular.

Scope and geographical coverage: Phase I DPEP districts.

Methodology: In order to undertake the comparative analysis of recent trends in DPEP and non-DPEP districts, data was obtained for all the districts of the seven DPEP states from the DPI office/ Directorate of Education of respective states. The period covered was 1993-94 to 1996-97. Data aggregated below the district level was not available from the DPI office. In addition, data from Census and other sources was also used depending upon their availability.

Major findings: (1) Primary School Infrastructure: (a) The deficiency of the classrooms is so acute in many schools that the large classrooms were divided/partitioned into smaller rooms to provide teaching space to two teachers, (b) The student-classroom ratio (SCR) was calculated for 1995-96 and 1996-97. There are large inter-district variations in SCR. Three DPEP districts had an average of more than 70 students per classroom. On the other hand, many districts showed low values of SCR. (2) Growth rate of primary state enrolment: (a) The girls' enrolment increased more rapidly in DPEP districts as compared to non-DPEP districts. The above evidence shows that the enrolment increase was faster in DPEP districts as compared to non-DPEP districts taken together and the effect was more pronounced in the enrolment of girls, (b) The share of girls to total enrolment was more than 40% for all DPEP districts with the exception of three districts. (3) Internal efficiency assessment: Repeaters Rate: (a) The incidence of repetition varies from state to state, (b) The repeaters rate was lower among girls as compared to boys for most of the districts. In Madhya Pradesh, for some districts, the repeater rate for girls was higher than that of the boys. (4) Gross and net enrolment rates: (a) The GER obtained from DPI data varies from 70.4% in Hisar (Haryana) to 144% in Sidhi (MP), (b) There were large variations in the GER as calculated from the DISE and the DPI data. {NP/02}

Note: *For a detailed list of studies completed by NIEPA during 1994-2000 for DPEP, please refer to Bibliography section of the document. Abstracts of 19 more studies were not available for various reasons at the time of going to press and are these are slated to be included in the updated version of this document later.*

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[2] Note: But for the first two studies, the remaining 19 are only listed studies i.e. their abstracts were not available for various reasons at the time of going to press and are slated to be included in the updated version of this document later.

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LIST OF ABBREVIATIONS AND ACRONYMS

ANOVA	Analysis of Variance
AS	Alternate Schools/Schooling
AWW	Anganwari Worker
BAS	Baseline Assessment Survey
BEO	Block Education Officer
BLEC	Block Level Education Committee
BRC	Block Resource Centre
CLA	Co-operative Learning Approach
CRC	Cluster Resoure Centre
CRCC	Community Resource Co-ordination Centre
DI	District Inspector
DIET	District Institute of Education and Training
DISE	District Information System for Education
DPEP	District Primary Education Programme
DPIC	District Programme Implementation Committee
DPO	District Project Office
DSS	Double Shift Schools
DTE	Directorate of Teacher Education
EC	Executive Committee
ECCE	Early Childhood Care and Education
EFA	Education for All
EGS	Education Gurantee Scheme
EVS	Environmental Studies

FGA	Focus Group Area
FGD	Focus Group Discussion
GER	Gross Enrollment Ratio
ICDS	Integrated Community Development Scheme
MAS	Mid-term Assessment Survey
MDM	Mid-day Meal
MLL	Minimum Levels of Learning
MSCERT	Maharashtra State Council of Educational Research and Training
N	Total number
NCERT	National Council for Educational Research and Training
NER	Net Enrollment Rate
NFE	Non-formal Education
NGO	Non-Government Organisation
NIEPA	National Institute of Educational Planning and Administration
OB	Operation Black-board
OBC	Other Backward Classes
OPP	Oral Preparatory Programme
PLCS	Perception of Language Competencies Scale
PRA	Panchayati Raj Association
PRI	Panchayate Raj Institutions
PTA	Parent-Teacher Association
PWD	Public Works Department
RIE	Regional Institute of Education
SAS	Social Assessment Survey
SC	Scheduled Caste
SCERT	State Council of Educational Research and Training
SCR	Student Classroom Ratio

SI	School Inspector
SOPT	Special Orientation of Primary Teachers
SSS	Single Shift Schools
ST	Scheduled Tribe
TE	Teacher Educator
TLM	Teaching-learning material
TTP	Teachers Training Programme
UEE	Universalisation of Elementary Education
VEC	Village Education Committee